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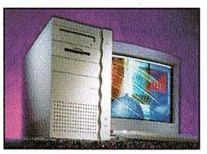

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MACFORMAT

ISSUE 32 ■ CHRISTMAS 1995

The Finder

REVIEWS A-Z

Here's the complete list of what we've reviewed this issue.

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FREE WITH BRITAIN'S BEST-SELLING MAC MAG
MACGAMER
Give it some stick!
Inside the LucasArts empire
Marathon 2 preview • The finest Mac games ever

Fabulous Mac game reviews for you to drool over in our special free 32-page supplement.

HOW TO...

The answer is glowing in the dark 52

Plugs-ins can do amazing things for your images. There are all sorts of filters you can add to liven them up and create spectacular effects – we show you how in our continuing series on image editing.

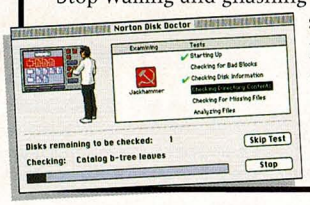
FTP is easy 67

FTP and Gopher are the most common ways of transferring files over the Internet. In part six of our Net series, we explain exactly how to use it.

Follow the script 71

Use AppleScript to create scripts that add powerful functionality to your *HyperCard* stacks. Want to know more? We reveal all.

MacAnswers 75

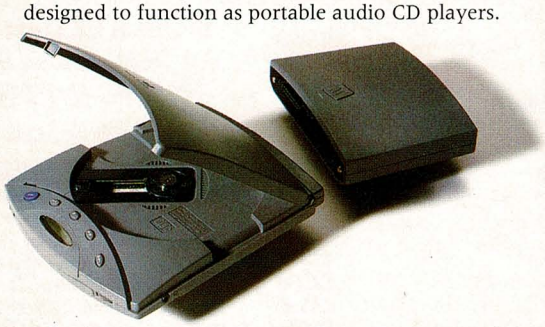


Stop wailing and gnashing your teeth over those seemingly insoluble Mac problems. Turn to our MacAnswers pages for all the answers you could possibly need.

WIN! WIN! WIN!

Reno Portable CD-ROM Player 146

Courtesy of Gasteiner Technologies, we're giving away five double-speed CD-ROM drives, worth over £2,000 altogether! They're also cleverly designed to function as portable audio CD players.



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The MACFORMAT team make their Christmas wishes and hope that someone is listening.

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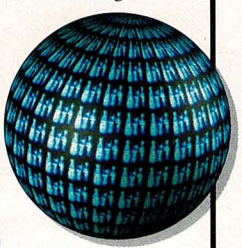
Electronic pages for your delectation and delight.

News 21



Turn your Mac into a 3D workstation; Apple blitz your senses as Christmas approaches but reject a rewritten version of the Mac OS... and more.

What's New 26

The latest version of natural media program, *Painter;* an all-in-one Internet connection kit from Apple; a multimedia speaker system from Sony; a *Prince of Persia* limited edition set; and plenty more sexy new kit.

Apple Talk: Letters 30

Macs-spotters, Net nerds and outraged Christians – we get them all here! Nice to see we're generating plenty of healthy debate.

Special Reader Offers 120

Specially negotiated deals to make you salivate.

Back Issues 123

Missed an issue? Fool! Turn to this page, quick!

Free Reader Ads 135

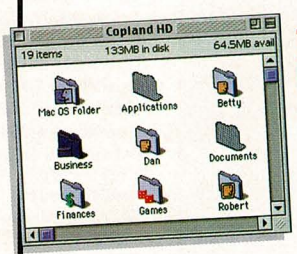
Make a bit of cash from that old PowerMac that's gathering dust in the attic. As if.

Buying Advice 138

Read this before you spend your hard-earned dosh.

Classic System Crew 138

The view from inside the Mac. It's weird in there.



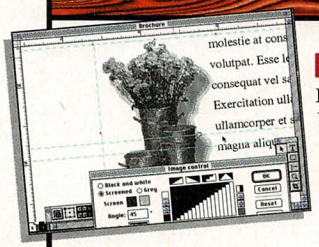
Talking Point: Copland 143

If System 8, aka Copland, ever arrives, what would you like it to offer? A reader airs his views.

Next Issue 145

1996 will be the year of the Macintosh. Next issue, we dons our shades and take a peek at the future.

REVIEWS



PageMaker 6 92
It's back, and it means business. The latest version offers its rival, *QuarkXPress*, a serious challenge.

DOS-compatible PowerMac 96
A PowerMac and a 486 PC in one case. Does it work or is it just a load of hype?

Photoshop books 98
Get yourself up to speed with *Photoshop*. Books to inspire everyone from beginners to experts.

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The Complete Idiot's Guide to Photoshop 98
Photoshop 3 Wow! Book 98

C•A•T 4 100
A heavyweight contact manager and database for your business. But does it deliver the goods?

Multimedia: kids 103
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Mr Wonder's Greatest Toyshop on Earth 104
Fun School: Young Scientist 105
How Would You Survive 106
Nikolai's Trains 108
Red Rhino and Blue Tortoise 109
Learn the Art of Magic 109

Multimedia: science 112
Science made interesting? Surely it can't be done? Once again, multimedia leads the way.
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Encyclopedia of Science 113
Planetary Taxi 114
Materials 115

Shareware Heaven 116
From the depths of cyberspace we bring you the latest shareware – from the bizarre to the surreal.

Game Reviews 124
Colonization is another classic, while *Wing Commander 3* demands serious hardware but rewards with fabulous graphics, and Frankenstein's monster is recreated on CD.

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Wing Commander 3 126
Burn:Cycle 128
Frankenstein 130
Crime Patrol 131
Welcome to the Future 132
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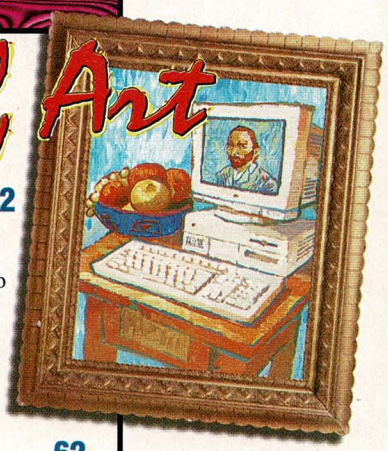
FEATURES

Works of Art 42
The Mac is recognised worldwide as a powerful graphics and design tool. But what use is that if you lack inspiration? Top graphics professionals bring you their tips and ideas, showing you step-by-step how they created some fantastic images.



Class Act '95 62
When Roxy Music's Andy Mackay produced the music to *A Class Act*, the TV series, he made full use of a variety of Macs, including a humble LCII. Find out how it was done.

MACFORMAT Xmas Stocking 36
The essential software and hardware that your Mac really doesn't like to be without and a few stocking fillers to boot (groan).

A new beginning 83
The latest breed of Macs has arrived, bringing new concepts such as PCI, 601 chips and DIMMs. But do the benefits brought by the 7200, 7500, 8500 and 9500 outweigh the problems they might cause?

COVER DISKS

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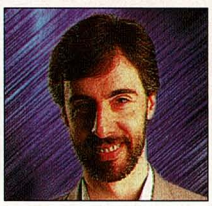
Your Cover Disk 12
Addictive gaming with *Pentominoes* and *Frog Xing, Xmas Lights* to brighten up your Desktop, the *Crystal Ball* fortune teller, and loads of useful utilities to tidy up your Mac.

Welcome to MACFORMAT

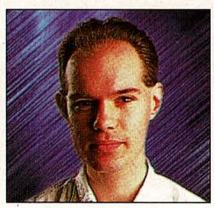
Everything you wanted to know about MACFORMAT, plus a sneak peek at our own Christmas wish lists...

ABOUT OUR WRITERS



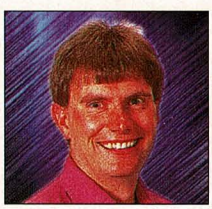
ALEX SUMMERSBY

Our Editor learned all about Macs by using them – or trying to. But Future's Mac Services department must have heard him whingeing about his poor old IIsi – they've just granted his Christmas wish and swapped it for a Quadra 700.



RICHARD HILL

Our News Editor and multimedia man edited this issue's MACGAMER supplement, so games feature highly in his wish list. We threatened GBH if he mentioned his SNES again, so he says he'll 'settle for a PlayStation'... emulator, obviously.



COLIN DALZIEL

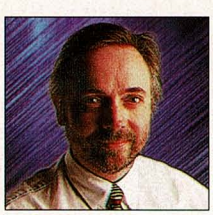
Ever since our Disk Editor visited Australia he's dreamed of escaping to a warmer climate for Christmas, but he loves his work... So, he says, 'How about a colour PowerBook and portable CD writer so I can do my work on the beach?'

LINDSAY BRUCE

Our new Technical Writer has just moved down from Scotland to join us, and he's enjoying playing with all our kit. For Christmas he says he'd like 'lots of memory and lots of SCSI cables – or failing that, somewhere to live would be nice.'

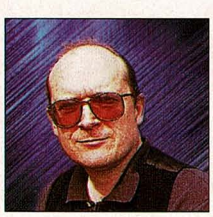
DEREK SMITH

Our Del (now of the very efficient Mac Services) says: '1. Fluffy mouse cover; 2. 40-watt stereo speakers so I can hear my e-mail boing in the garden; 3. To actually access Apple's Web site; 4. Sony PlayStation; 5. Claws manicured.'



ROD LAWTON

Our versatile software expert has just bought a new Mac with System 7.5, so top of his wish list is '4Mb more RAM, free, from Apple, so I can actually use QuickDraw GX. Thanks a lot, Apple.' We think that means 'please, Santa'.



BRIAN LARKMAN

Our graphics expert would like to point out that the college where he teaches computer graphics actually uses mostly IIsi's with about 4Mb of RAM. What he'd like for Christmas is just one of the top-spec Macs we've been *saying* they use.

ABOUT MACFORMAT

Welcome again to MACFORMAT, Britain's best-selling Macintosh magazine! Every issue we bring you:

- **Tips, techniques and tutorials** covering the range of Mac applications, from graphics, spreadsheets and databases to music, multimedia and games.
- **Features** about exciting Mac developments and novel uses, accompanied by Cover Disk programs whenever possible, so you can discover what your machine can do and try things you mightn't have tried before.
- All the latest Mac-related **news**, plus all you want to know about the wider issues, the people behind the headlines and the stories behind the stories.
- Authoritative **reviews** of interesting and affordable products, with clear buying recommendations.
- **Cover Disks and CD-ROMs** with demos so you can try software before you buy, useful utilities (specially chosen to complement features in the magazine), selected shareware programs, games, readers' contributions and much more.

Whether you're a veteran or a novice, we'll help you get more out of your Macintosh, whatever you use it for.

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ABOUT OUR REVIEWS

Every MACFORMAT review is designed to inform you in detail of what you'd be getting if you bought the product and help you decide whether it's worth your money. It tells you the essentials, without jargon.

MACFORMAT *does not review demos or unfinished programs.* We review only the finished products you could buy yourself, to help you decide whether to buy or not. We give clear buying recommendations, and rate products on this scale:

- 80+% means excellent.
- 70+% means well worthwhile, though not really outstanding.
- 60+% means good, but with a few shortcomings or some limitations.
- 50+% means acceptable but flawed.
- A rating below 50% means you should think carefully before parting with your money.

The MACFORMAT Classic Award

If a product earns a rating of 90% or more, we'll give it a MACFORMAT Classic Award. This means what it says: we judge the product to be a classic, a standard-setter of its type, something really special.

- We make every effort to verify all the information we publish, but products and prices do change. We always quote list prices (RRPs), but street prices do vary. Shop around, and check with the supplier before buying to make sure that the product you're considering will meet your needs. MACFORMAT cannot accept responsibility for any errors or omissions or for any losses that may arise as a result, but it is our policy to correct any errors of fact whenever we possibly can.
- MACFORMAT welcomes contributions for publication but we regret that we cannot return them. Submissions are accepted on the basis of a licence of copyright to Future Publishing Ltd, exclusive for six months – call for details. We will assume that all correspondence is for publication and all CD-ROM demos or readers' submissions may be incorporated on a Future Cover Disk/CD-ROM unless you expressly state otherwise in writing. See also page 31.
- We're up to our ears, we can't reply to mail personally, even if you include an SAE, or to faxes or e-mail. Nor can we answer technical queries over the phone – sorry!

FROM GOMARK DESIGN

STRATA™ STUDIO Pro

StudioPro Blitz Supports:

QuickDraw 3D, which allows users to manipulate and move rendered objects directly within the application, rather than just as wireframe or bounding boxes.

QuickTime VR, which enables users to explore virtual spaces and examine 3D objects interactively. StudioPro Blitz automates QuickTime VR authoring and scene compositing steps.

VRML. Users can save models as VRML files, publish transparently across the Internet, and create links between 3D objects and other common media types on the World Wide Web.

3DMF. Apple's new standard 3D file format. Models saved in 3DMF format will be equally functional on a Power Mac, a PC running Windows, or a UNIX workstation.

Hardware accelerators (PCI) and multi-processor architecture. Apple's multiprocessor created by Daystar makes it easy to implement and enhance the multitasking performance of StudioPro Blitz.

The most POWERFUL tools for CREATION

The STRATA Suite Of Products:

STUDIOPRO MEDIAPAINT VISION3D INSTANTREPLAY MEDIAFORGE

FEATURES INCLUDE:

- Boolean Modeling
- Metaballs
- Warp/Bend/Twist
- 3-D Sculptor Extrude Along a Path
- Explode/Shatter/Atomize
- And Much More!

£1017

MediaPaint

A digital media painting tool for video professionals,3D artists, animators and multimedia authors. Use MediaPaint to add special effects, cel animation and enhancements to QuickTime™ movies without modifying or damaging the original. Features include particle systems, time based filtering and Chroma-Key **£199**

Vision 3D

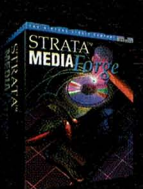
Combined 3D modelling, scene composition, animation and high quality photo-realistic rendering. Produce detailed pictures of objects and scenes with shadows, textures and reflections of outstanding quality. **£199**

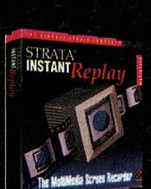
Instant Replay

Gives the multimedia professional the ability to capture any screen activity including menus and dialogs and save them as QuickTime™ movies.The utility can also capture input from virtually any external video or audio source with the proper hardware. **£59**

MediaForge

Provides powerful multimedia tools to create high-performance interactive videos,CD-ROM titles, presentations, computer- based training, demo materials and slide show for users of DOS, Windows or OS/2. **£584**





For further information on the Strata range of products please contact:-

Gomark Limited
10 Hurlingham Business Park
Sulivan Road
London SW6 3DU
Tel: 0171 731 7930
Fax: 0171 736 1215

Santa's helpers have been getting in some overtime helping to squeeze an unfeasibly large sackful of software onto one little CD. Colin Dalziel reveals what's in store.

There's a wide range of software on the Cover CD this issue, from sensational imagery in virtual worlds thanks to QuickTime VR to demos of the latest shoot-'em-up from Bungie, this disc has it all. Take a closer look to see what treats are in store.

- **Artwork in MACFORMAT:** a compilation of the images featured in our special art feature (which starts on page 42).
- **QuickTime VR:** the best virtual visualisation software, including 11 demo movies.
- **Clip Photo:** sample images from one of the best clip photo collections money can buy.
- **Demos:** interactive and rolling demos of a wide variety of software, including many samples of software featured in this issue of MACFORMAT.
- **Floppy:** all the files from the MACFORMAT HD Cover Disk.
- **Internet:** the latest versions of essential Internet software.
- **Readers' Corner:** the area of the Cover CD that's devoted entirely to your contributions.
- **Resources:** essential software for every Mac owner from a top shareware virus checker to a database of MACFORMAT reviews.
- **Shareware City:** over 100Mb of the hottest shareware and freeware, hot from cyberspace.
- **Shareware in MACFORMAT:** all the shareware and freeware reviewed this issue on our Shareware Heaven pages (starting on page 116).
- **Christmas wish list:** shareware and freeware samples from the MACFORMAT Yuletide wish list.

FLOPPY OR CD?

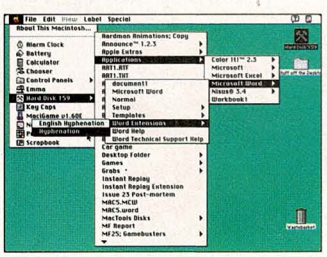
MACFORMAT is available in two editions: one with a CD-ROM and one with a high-density floppy disk. The CD contains all the software on the floppy disk in a folder called Floppy. See page 12 for more details.

Christmas Wish List

Utilities and games

Requires: see individual Read Me files

Can't think of a present for a Mac-owning friend? Check out the list on page 36, which is packed with things no Mac should be without. You might even get away with a cheap present, thanks to the essential shareware we've included on the CD!



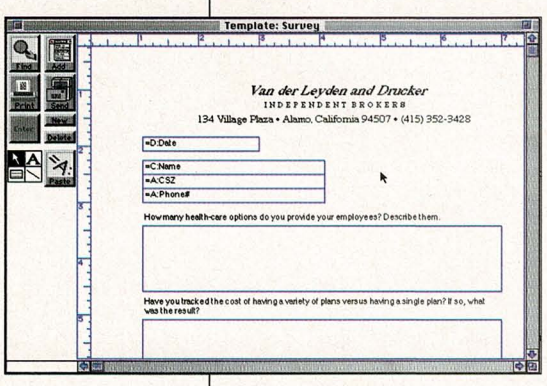
Pick out some lovely, cheap pressies for your Auntie from our shareware selection.

C•A•T 4

Relational database and contact manager

Requires: any Mac, 2Mb of free RAM

If you run a business, and need to keep control of all contacts and documents, you need *C•A•T 4* (reviewed on page 100). This is a fully featured demo which runs for 90 days from the day you create your first database. If you upgrade to the full package (see page 121) you can even use the files you started using this trial version.


Template: Survey
Van der Leyden and Drucker
INDEPENDENT BROKERS
134 Village Plaza • Alamo, California 94507 • (415) 352-3428
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=C:Name
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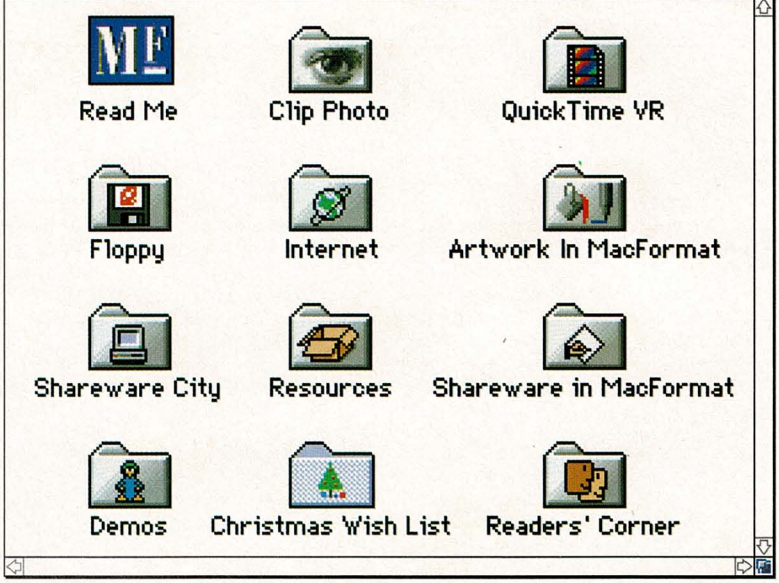
How many health-care options do you provide your employees? Describe them.
Have you tracked the cost of having a variety of plans versus having a single plan? If so, what was the result?

MacFormat 32

626.2 MB in disk

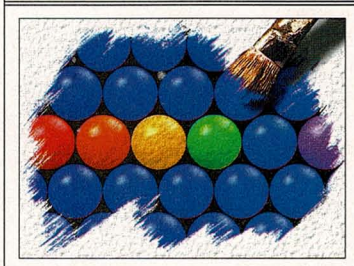
Over 4,000 files of programs, utilities, clip art, shareware, demos and much more



Art Software

Graphics package demos

Requires: see individual Read Me files



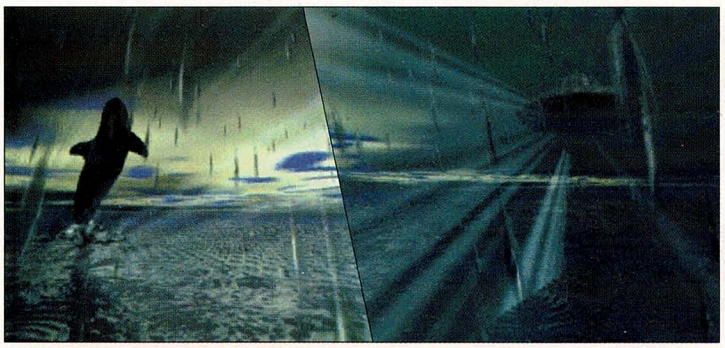
After last issue's graphic studio bonus disc we bring you a great selection of graphic software to complement our art feature, plus a selection of images in a wide variety of styles. Recreate the images for yourself by following the step-by-step tutorials on page 42, using our demos of *FreeHand 5*, *Painter 3*, *StudioPro 1.5.1*, *Sketch! 2* and *Color It! 3.0.2* – which is a demo of the very latest version. You can also upgrade from last issue's free *Color It! 2.3.5* to the full version of *Color It! 3.0.4* for just £44.95 – turn to page 122.

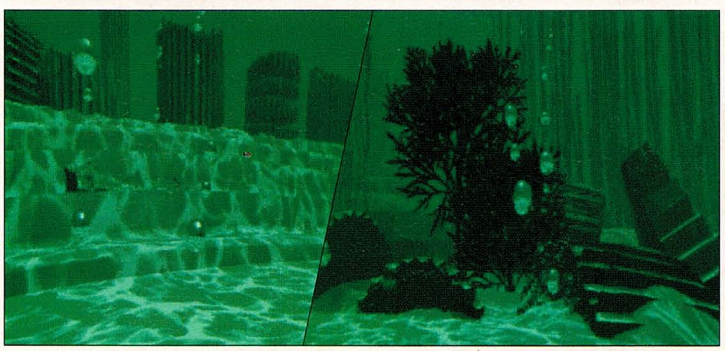
QuickTime VR

Virtual reality viewer

Requires: LCII or better, 8Mb of RAM, System 7.1

With the invention of QuickTime VR you can now take a more active role in looking at images. This amazing software enables you to move around and explore virtual worlds – you can zoom in and out of the images, pan around the screen and, in some movies, even look at things from a completely different angle. There are 11 movies for you to explore, including a walkabout of the headquarters of Apple UK and a computer-generated image of the lost city of Atlantis.





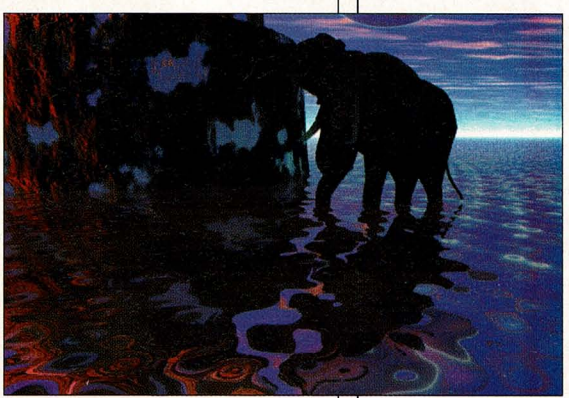
Readers' Corner

Your contributions

Requires: see individual Read Me files

Readers' Corner started off as a small section of the CD with a few images and a handful of demos. This issue it includes over 60Mb of your contributions! It's always a pleasure to see your artwork, so keep them coming. There are prizes to win with every issue, and if your work makes it into the pages of MACFORMAT, over 47,000 people will get to see your creative skills.

Once again we're giving away copies of *Iron Helix* for the best artwork submitted. The winners this issue are: Vincent Hattenberger, Patrick Weber and Dave Unstead. Next issue we'll be giving away four copies of *PGA Golf Tour 2*, so get those entries coming in.



We get some great artwork sent in by readers – this image is from Patrick Weber.

SEND US YOUR STUFF!

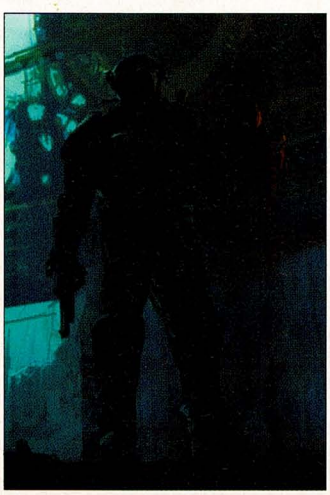
We always like to put readers' art on the back cover of the CD, so if you want your work to appear in this prime position, send your images to us with a resolution of at least 1,000 x 800 pixels. The address for all your submissions should be: **Disc Editor, MACFORMAT, 30 Monmouth Street, Bath, Avon BA1 2BW.**

Marathon 2

Game demo

Requires: LC, 4Mb of RAM, System 6.0.5

The original version of *Marathon* was a MACFORMAT classic, and *Marathon 2* looks like it's going to be even better. This official demo enables you to progress through the first four levels of the game with full playability. As in the original, you wander round with your arsenal of weaponry blasting away at almost anything that moves. But it's not all mindless violence – you must find your way around the maze of passages to reach your goal and proceed to the next level. You can play it on an LC, but a Quadra is recommended.

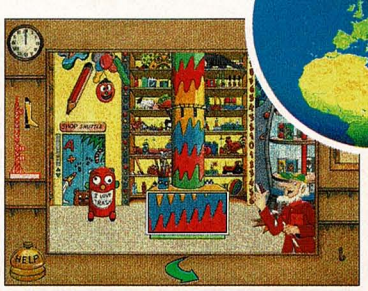


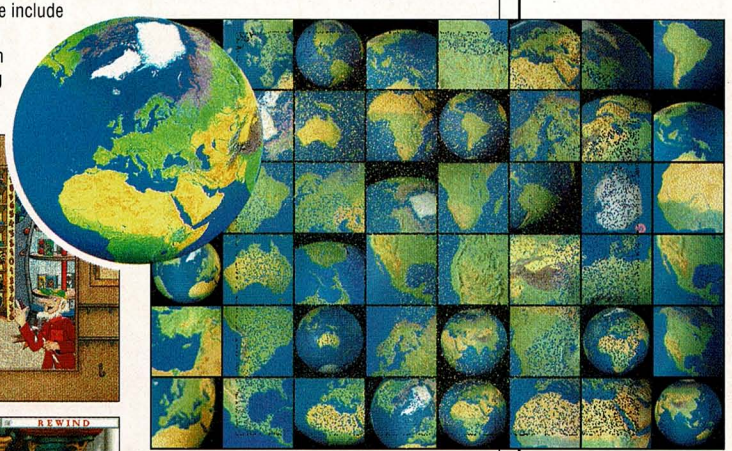
Multimedia

Children's and educational software

Requires: see individual Read Me files

This issue's multimedia demos kick off with the excellent *Mr Wonder's Greatest Toyshop on Earth*, which gives you a guided tour of the toyshop and a chance to play with some of the goodies in store. *Learn the Art of Magic* will get all budding Paul Daniels going on the way to TV stardom (and maybe even the inevitable gameshow). If you want more informed multimedia, take a look at *Encyclopedia of Science*, an impressive rolling demo from Dorling Kindersley. For the more geographically inclined, we include the cartographic dream package *Terra Forma*, with which you can create some absolutely stunning images of planet earth.





Create stunning maps for design or reference work with the cartographic package *Terra Forma*.

Rediscover science and enjoy learning with *Encyclopedia of Science*.

CUSTOM ICONS

The icons we use on the CD help to give it a friendly atmosphere, but they can slow it down. If that's a problem on your Mac, install *CDIconKiller* to speed things up – it's in the Resources folder on the CD-ROM.

Clip Photos

More high res photos! This issue we bring you images from Corel's Cities and Countries compilation.

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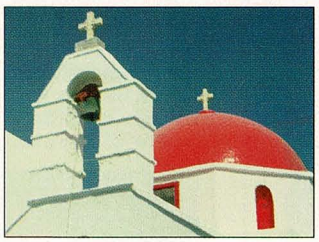
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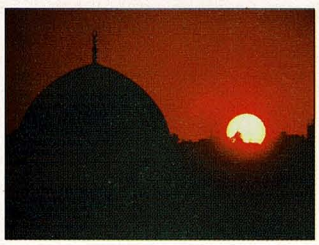
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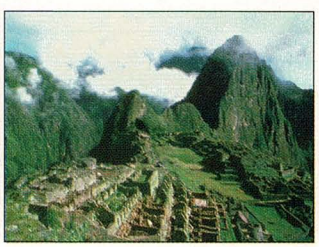
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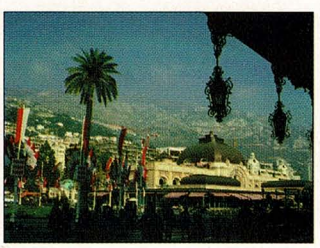
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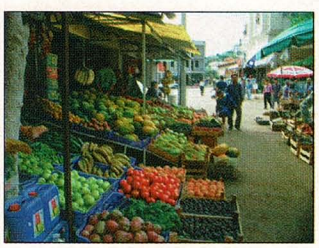
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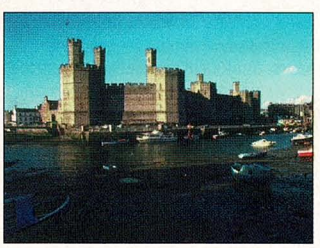
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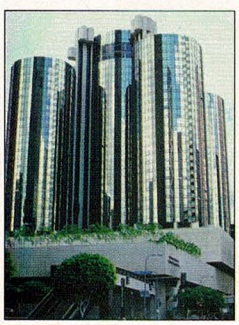
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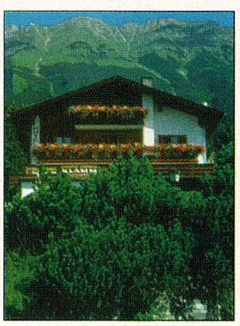
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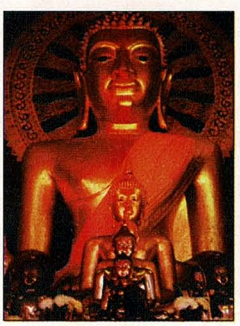
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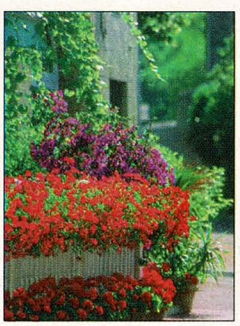
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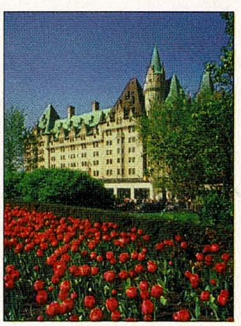
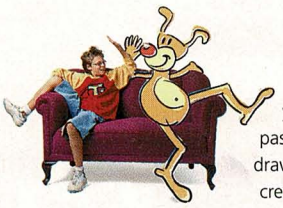

242002

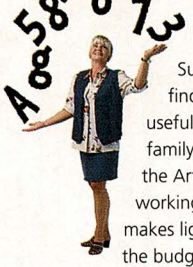
Dad – sorry, sales and marketing communications manager Bruce Corfield – got fed up with the same old presentations. Now he uses the ArtPad to spice up his business proposals with hand drawn illustrations, making points much more memorably and effectively than any hackneyed clip art could (and retouching family photos is great fun too!).



You name a comic and Jon'll tell you who did the illustration. It's his passion – especially since he started drawing his own. With the ArtPad he's creating characters, dialogue – entire stories. His friends think they're well wicked. His teachers? Well, so long as he doesn't bring them into class...

The new ArtPad II draws the family together.

Anna's solved her biggest problem – what to give her string of boyfriends for their birthdays. She designs way-out T-shirts on her ArtPad especially for them, and gets them printed down at the instant printers. It's excellent for writing love letters on, too – especially when words aren't enough.



Supermum, alias Patsy, finds spreadsheets really useful for keeping track of family finances – she loves the ArtPad's natural way of working. The cordless stylus makes light work of balancing the budget. Not to mention putting together the shopping list – typing is so boring!

Call the ArtPad II InfoLine: 01703 814939

ArtPad II is the universal input tool for every computer. It works with every major application, and it's as easy to use as paper, pencils and an eraser. It's batteryless, the stylus is really light and the tip is pressure sensitive. Make sure your family's not missing out – just give us a call and we'll send you details and tell you where you can try out an ArtPad II for yourself.

ArtPad II – it's the two-way family favourite.

WACOM

Putting technology in its place

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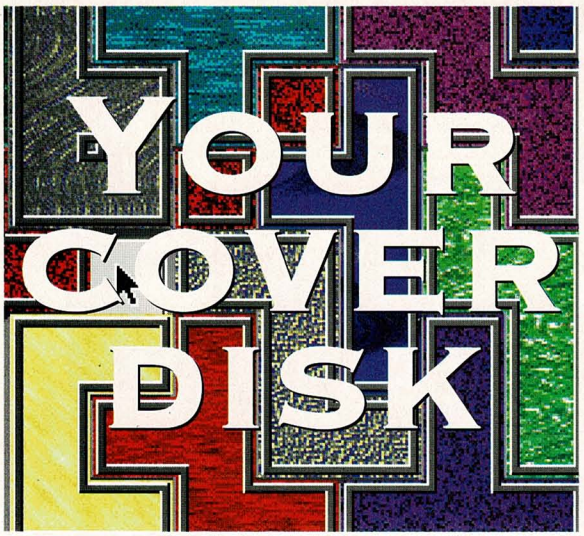
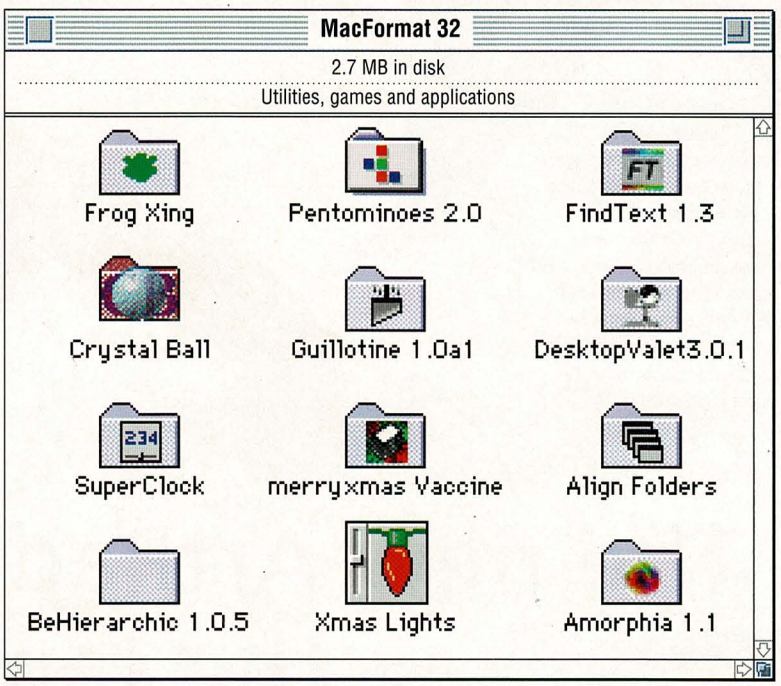


Packed to the brim with games, utilities and applications – all the ingredients for a great Cover Disk! Colin Dalziel takes a look at the goodies in store.

This issue we have some addictive games to help you while away those long winter evenings. For clairvoyants there's a crystal ball to gaze into, and, of course, we've included a selection of indispensable utilities designed to make life a little easier. To brighten up your Mac, we have an attractive (if not subtle) Christmas decoration for your Desktop.



START HERE

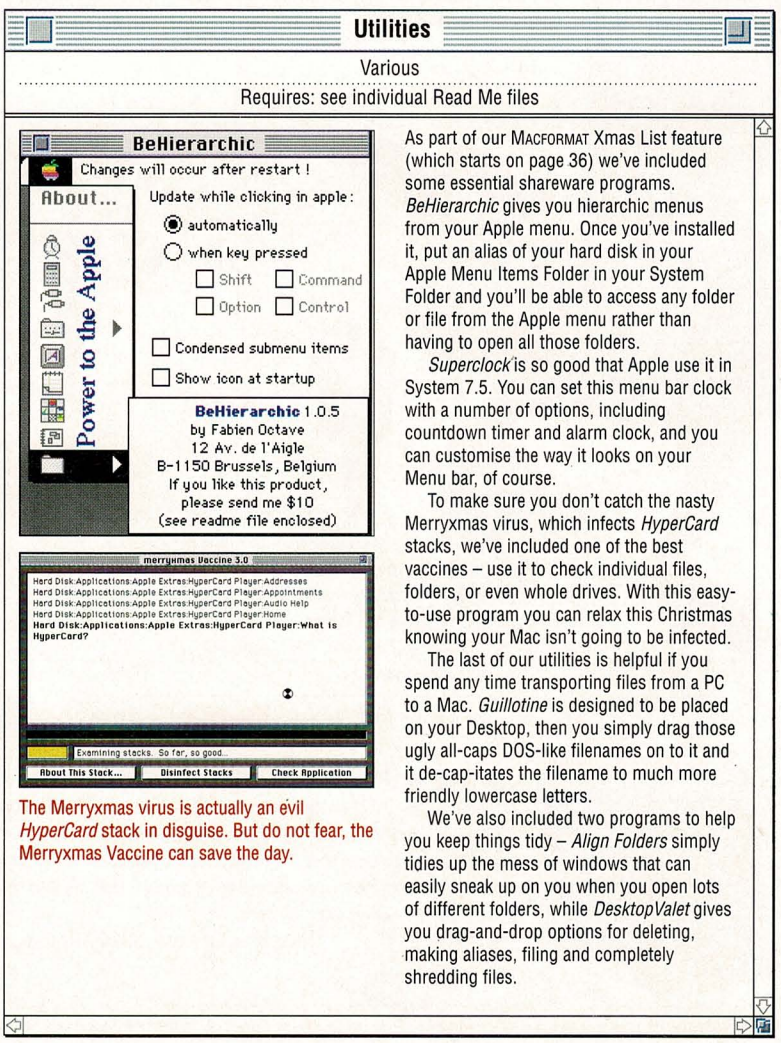
High density floppy disks normally contain up to 1.4Mb of software, but to bring you as much as possible, we use a compression program to fit more on. So you need to decompress the software before using these disks, and this month you'll need 2.7Mb of hard disk space. We also recommend that you always make a backup of the MACFORMAT Cover Disk, just in case anything goes wrong. Here's what to do...

1 Ensure the original Cover Disk is write-protected (move the tab so that you can see through the hole).
2 Insert the MACFORMAT disk.
3 Drag the Disk's icon over your hard disk's icon.
4 The contents are copied onto your hard disk, but are still compressed and cannot be used yet.
5 Drag the Cover Disk icon to the Wastebasket to eject the Disk.
6 Insert a blank high density disk.
7 Drag the MACFORMAT 32 folder from your hard disk onto the blank disk's icon to make your backup.

To decompress the Cover Disk, open the MACFORMAT 32 folder on your hard disk.
1 Double-click on the MACFORMAT 32 icon.
2 Click **Continue**.
3 A box then asks you where you want to save the software. Choose the place on your hard disk where you want everything stored and click **Save**.

Before installing the Cover Disk, we always recommend that you back up any important work on your hard disk. This precaution will avoid problems should it transpire that any of the software isn't compatible with your setup.

We make every effort to check our Cover Disks for compatibility and viruses, but the information here is intended as a guide only, and MACFORMAT cannot be held responsible for any damage to data, any inability to use this software or any resulting losses. So please, take the precaution of backing up first.



The Merryxmas virus is actually an evil *HyperCard* stack in disguise. But do not fear, the Merryxmas Vaccine can save the day.

As part of our MACFORMAT Xmas List feature (which starts on page 36) we've included some essential shareware programs. *BeHierarchic* gives you hierarchic menus from your Apple menu. Once you've installed it, put an alias of your hard disk in your Apple Menu Items Folder in your System Folder and you'll be able to access any folder or file from the Apple menu rather than having to open all those folders.

Superclock is so good that Apple use it in System 7.5. You can set this menu bar clock with a number of options, including countdown timer and alarm clock, and you can customise the way it looks on your Menu bar, of course.

To make sure you don't catch the nasty Merryxmas virus, which infects *HyperCard* stacks, we've included one of the best vaccines – use it to check individual files, folders, or even whole drives. With this easy-to-use program you can relax this Christmas knowing your Mac isn't going to be infected.

The last of our utilities is helpful if you spend any time transporting files from a PC to a Mac. *Guillotine* is designed to be placed on your Desktop, then you simply drag those ugly all-caps DOS-like filenames on to it and it de-cap-itates the filename to much more friendly lowercase letters.

We've also included two programs to help you keep things tidy – *Align Folders* simply tidies up the mess of windows that can easily sneak up on you when you open lots of different folders, while *DesktopValet* gives you drag-and-drop options for deleting, making aliases, filing and completely shredding files.

GOT A PROBLEM?

If either of your cover-mounted high density disks or CD-ROMs is defective, return it to us and we will replace it. Please make sure you have followed the installation procedures described in these pages correctly, to ensure that there is a physical problem with the disk itself. Otherwise, the replacement will be just the same!

Return HD disks to:
Discopy Labs
PO Box 21
Daventry
NN11 5BU

Return CD-ROMs to:
MACFORMAT CD returns
Future Publishing
FREEPOST (BS4900)
Somerton, Somerset, TA11 6BR

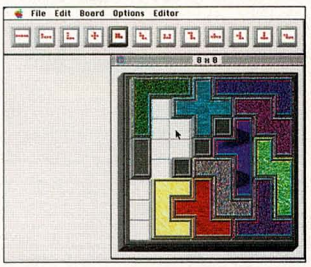
Enclose a self-addressed padded envelope (but we'll pay return postage) with the disk or CD, and a description of the fault. Please do not return disks or CDs to the editorial office; we don't hold any stocks of them and can only refer you to the addresses above.

Pentominoes

Game

Requires: any Mac

Pentominoes sounds like a simple game until you try it for yourself. All you have to do is fit a few shapes into a grid, but the shapes appear to have been carefully chosen for their incompatibility, and it's no easy task to get them all together within the confines of a grid. To make things easier, you can flip the shapes any way you want, but this requires that you visualise exactly what the new shape will look like before you can place it on the grid.

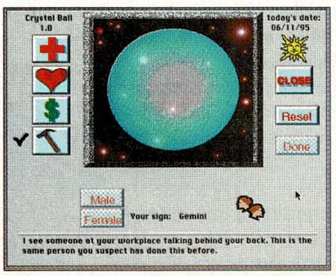


You'll have to use your nonce if you're to fill the *Pentominoes* grid. Frustrating? Not 'alf.

Crystal Ball

Fortune teller

Requires: any Mac



Crystal Ball is a fun program that claims to be able to demystify the future for you. Simply enter your birth sign and sex, and away you go. You are then told what's around the corner in four different areas of your life: love, health, money and work. Some of the predictions are interesting, to say the least, but don't take it too seriously – this one is just for fun!

Some of the messages in *Crystal Ball* might be a little too close to the truth for comfort!

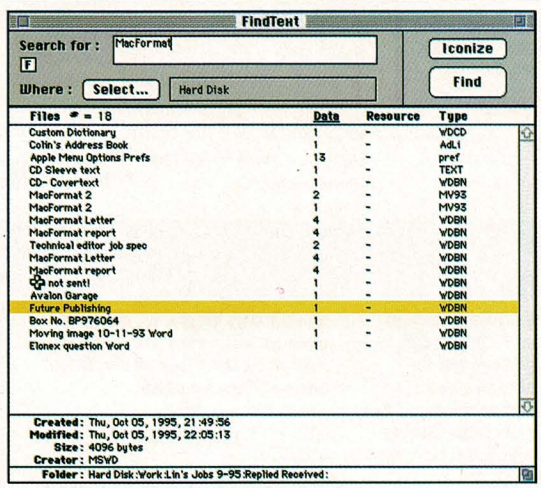
FLOPPY TOO

We are always on the lookout for readers' contributions for the floppy as well as the CD, so don't be put off just because you don't have a CD-ROM drive. Send them in to the address on page 6.

FindText 1.3

Utility

Requires: any Mac


FindText
Search for : MacFormat
Iconize
Find
Where : Select... Hard Disk
Files = 18
Data
Resource
Type
Custom Dictionary 1 - WDCD
Colin's Address Book 1 - AdLi
Apple Menu Options Prefs 13 - pref
CD Sleeve text 1 - TEXT
CD- Covertext 1 - WDBN
MacFormat 2 2 - MV93
MacFormat 2 1 - MV93
MacFormat Letter 4 - WDBN
MacFormat report 4 - WDBN
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MacFormat Letter 4 - WDBN
MacFormat report 4 - WDBN
not sent! 1 - WDBN
Avalon Garage 1 - WDBN
Future Publishing 1 - WDBN
Box No. BP976064 1 - WDBN
Moving image 10-11-93 Word 1 - WDBN
Elonex question Word 1 - WDBN
Created: Thu, Oct 05, 1995, 21:49:56
Modified: Thu, Oct 05, 1995, 22:05:13
Size: 4096 bytes
Creator: MSWD
Folder: Hard Disk:Work 1.in's Jobs 9-95:Replied Received:

FindText can search the files on your hard disk for that specific string of text you know is hiding in there somewhere. You can even specify where it has to look in the file: the data fork, the resource fork or both. This saves you having to open ten files to get hold of the one you're after, and *FindText* can work in the background, which means you can get on with something else rather than watching the progress bar crawl across the screen.

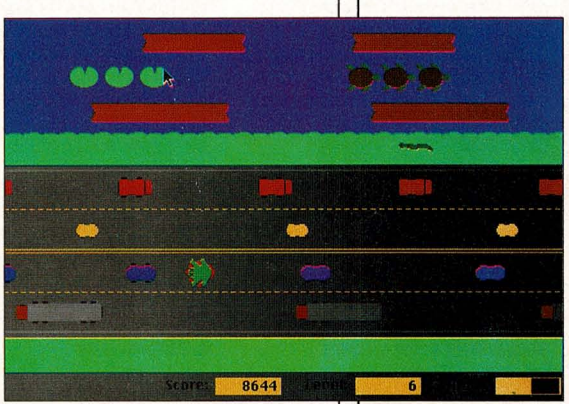
You'll never misplace a file again, thanks to *FindText*.

Frog Xing

Game

Requires: colour Mac

Remember *Frogger* – the classic arcade game? Then *Frog Xing* should be familiar. You must guide your frog on the perilous journey from the side of the road to the safety of the riverbank. You have to cope with what looks suspiciously like rush hour traffic, so use the Green Cross Code. Next comes the river, which should be easier – but for some reason the frog can't swim! To get across the river he must hop onto the back of passing objects, including logs, lilypads and turtles. Don't try piggybacking a turtle, though, because they tend to dive underwater and drown you! The final job is to land safely in the correct spot on the riverbank, and start again. As you progress through the levels, the game gets more hazardous and the pace seriously frantic!



Our froggy friend risks life and limb just for your entertainment in *Frog Xing*.

Xmas Lights

Novelty utility

Requires: colour Mac

No festive Mac is complete without its own Christmas decorations. Simply put this utility in your System Folder and choose the pattern you want the lights to follow. On restart you'll have instant menu bar illumination and be the envy of Mac owners everywhere!

You can find MACFORMAT and all of Future's other magazines on our FutureNet site on the World Wide Web. We've hunted down links to plenty of other great Internet sites as well.

Getting connected

All you need to connect to FutureNet is a modem and an Internet account like Demon or CityScape, or a direct server connection through work or college. There are no hidden charges – FutureNet is free! Just use your World Wide Web browser to connect to

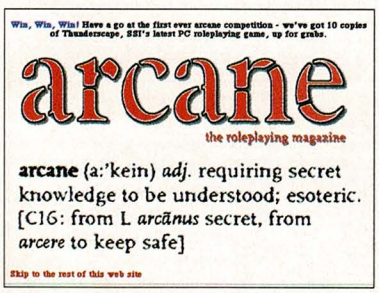
http://www.futurenet.co.uk/

What's new on FutureNet
Last updated: 24 October 1995, 1645 GMT
• Message from the Editor
News
• FutureNet World News - your on-line daily news service
• Gallup Games Charts - week ending 14 October 1995
• The Official PlayStation Magazine - first issue on sale Tuesday 7 November
• Sega Power News (1) - all the latest news from Sega Power
• Stop press - yet more news of games and other Sega stuff, from Sega Power
• Sega Power News (2) - even more news stories from Sega Power
• ST FORMAT Reader Awards - get your votes in for the STF awards
• Atari Jaguar poll - have your say in the Atari Jaguar poll, from ST FORMAT
• Win win win! - copies of the Zakarn trilogy, from ST FORMAT
• Jonze - Rumour, gossip hard fact and true lies from the beer belly of PC Attack
• PC Attack, Issue 7 - a sneaky preview of the new-look PC Attack
• PC Attack News - the latest hot games info, from PC Attack
• MacFormat News - all the latest goings on, from MacFormat
• arcane - discover Future's latest mag launch
• ExtraNews - Frank Charlton brings you ST news from across the Channel
• STF News - the latest from the Atari news desk, from ST FORMAT
• ST FORMAT feedback - readers' letters from issue 75 of ST FORMAT
• PC Plus news - news on Intel, plus an interview with Microsoft UK

FutureNet continue to add new features every week. There's a helpful What's New page so you find your way around.

Once you've finished your copy of MACFORMAT, you needn't wait all those weeks to get your next fix. We're on the World Wide Web as part of the FutureNet site. Open 24 hours a day, we offer news, reviews and features, as well as links to other top sites on the Web.

Below you'll see the links that have been added most recently, all of which have something to do with this issue. All the links mentioned in the last few issues are available too. You can use these as a convenient starting point for your exploration of the Web.


Win, Win, Win! Have a go at the first ever arcane competition - we've got 10 copies of Thunderscape, SSI's latest PC roleplaying game, up for grabs.
arcane
the roleplaying magazine
arcane (a:'kein) adj. requiring secret knowledge to be understood; esoteric. [C16: from L arcānus secret, from arcere to keep safe]
Skip to the rest of this web site

All of Future's magazines are on-line, including our latest, the role-playing game mag *Arcane*.

The 911 Gallery features work from artists who use computers, including a selection from Dorothy Simpson Krause.

New links this time include help for finding the most spectacular examples of art on the Net and a good place to start if you want to download software from the Net onto your hard drive.

FutureNet is currently having a double celebration. We've been recommended by Point Communications, a well-regarded company that publishes reviews of Web sites, as one of the top 5% of all the sites out there. So it's not just us who think we're wonderful! We've also broken the one million barrier – that's one million hits (page, graphic or file accesses) in a single week.

Look out for more developments soon, including the result of our Design a Web Magazine competition from issue 30.

RICHARD HILL

LINKS FOR THIS ISSUE

You can visit any of the following Web sites by typing its address (which is given below each title) into the Location line of your Web browser. Alternatively, you can go to the World Wide Web Road Map section of MACFORMAT's pages on FutureNet. There you can find direct links to each of these sites and any addresses mentioned elsewhere in the magazine, as well as dozens of others. This issue's links will be maintained until at least Friday 1 March 1996.

Arts and Entertainment

911 Gallery Home Page
http://www.iquest.net/911/iq_911.html
The 911 gallery has a real world home in Indiana, but a virtual home on any Mac connected to the Web. It promotes electronic media – graphics, video and music created on the computer. Permanent and special exhibitions are on display here. Bonny Lhotka's *A World* has been used behind the FutureNet logo at the top of this page.
Works of Art, page 42

Classic Arcade Games
http://sharkie.psych.indiana.edu/rynersw/vids/vids.html
While our special MACGAMER supplement shows you the future of gaming, here you can relive the good old days with arcade favourites like *Q*Bert* and *Galaxians*. There are also tips on where to find the original consoles.

FineArt Forum
http://www.msstate.edu/Fineart_Online/art-resources/
This excellent site lists pages that are part of the on-line art world. From galleries and individual artists' pages to details of events and journals, this site covers the whole scene.
Works of Art, page 42

Computing

Info-Mac Archive Mirror Sites
http://www-forum.stanford.edu/info-mac-mirrors.html
There are thousands of Mac programs available to download over the Net using File Transfer Protocol (FTP) – although buying a MACFORMAT CD-ROM is cheaper than building up the phone bill! The Info-Mac Archive is one of the most popular sites for software around, so it's generally very busy, of course. This site lists plenty of alternatives that carry the same software.
Net basics, page 67.

Point Communications Corporation
http://www.pointcom.com/
If you're curious to see what else, apart from FutureNet, has been nominated as one of the 'Top 5% of All Web Sites', Point have full reviews of all the sites they rate highly. You can do a search for the subject you're most interested in.

QuickTime VR Archive
http://quicktime.apple.com/archive/index.html
If you've tried QuickTime VR on our CD-ROM this issue, you might want to download more clips from this page on Apple's official QuickTime site. You'll find music scenes like groups, studios and clubs and much more. We've already got a link to the QuickTime VR site, which offers a different selection.
Reality bytes, page 57

General

Welcome to the North Pole
http://north.pole.org/santa/
It's almost Christmas, so why not pay a visit to the North Pole and say hello to Santa? You can send an e-mail direct to Santa and his elves, decorate a digital Christmas tree and find out what Rudolph the Red-nosed Reindeer's having for Christmas dinner.
Christmas gifts for your Mac, page 36

Jumplists

Macintosh Information Resources
http://gamma.rollanet.org/computer/#mac
A very thorough site with links and resources for Mac owners on the Web, including a breakdown of what Apple Computer provide on the Net and companies that offer Net software.

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Page 1 of 1

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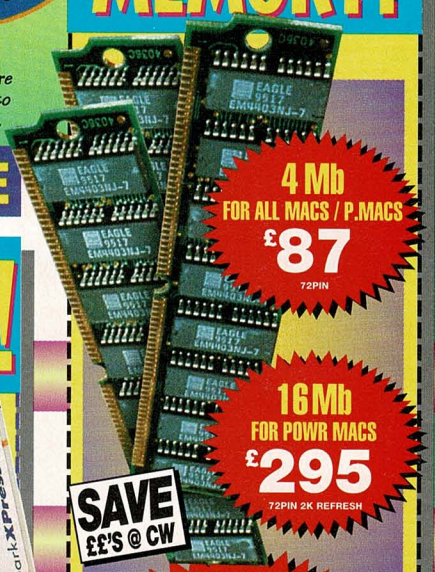

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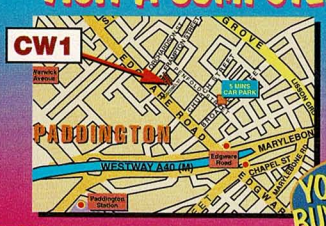

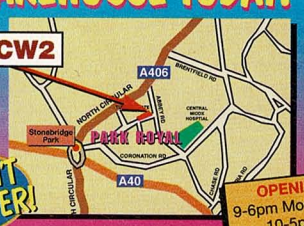

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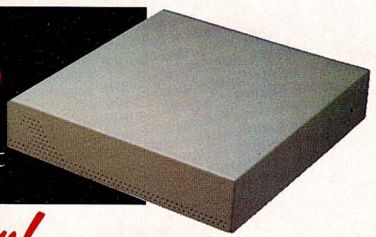

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A new add-on turns your Mac into a 3D workstation; Apple gear up for Christmas; and there's debate about putting the Mac OS on other computers. News Editor: Richard Hill.

Breathtaking 3D for £350

Powerful 3D effects thought impossible to achieve on a Mac are now simple with the help of a new hardware card from Apple. The QuickDraw 3D Accelerator Card, due out later this year, will enable you to create stunning 3D images and animation of a quality you'd expect only to see on far more expensive computers.

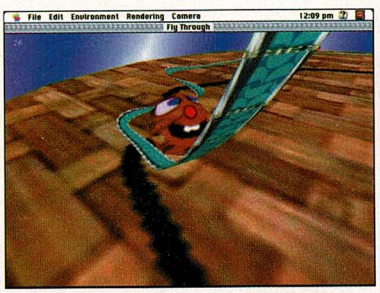
With the card, you can create 3D images far more quickly than before and manipulate them almost instantly. It's expected to cost only £350.

The card works in conjunction with QuickDraw 3D, Apple's new software technology for PowerMacs. Well-known programs like *Infini-D* and *Strata Studio Pro* are being rewritten, using the system to boost their 3D capabilities, and are starting to go on sale. The software speeds up the 3D process by itself, but the card grabs hold of anything being done with QuickDraw 3D and does it up to 12 times faster, adding extra detail for good measure. A typical function like adding a texture to a model can be done ten times more quickly.

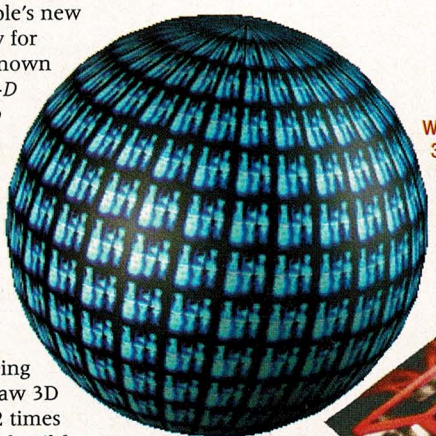
The card works independently of your CPU, so you'll get the best it can offer even if you don't own an expensive PowerMac. You can also plug in a second monitor and see the benefits on both screens – unusual for a 3D card. Also rare for a card at this price is the ability to cope with large monitors at higher resolutions without slowing down, and to create sophisticated effects like transparent objects easily.

Apple's release of the card at such an aggressive price is a sign that they believe this area is very important to the prosperity of the Mac. They see it fitting into both professional and home setups. In business, it will help designers create 3D-based work more quickly and in more detail than before. It will also make serious graphic power more affordable. Professional 3D has been the realm of workstation computers like the Silicon Graphics Indy – a snip at £6,400 or so. The Mac will be able to perform near this level for far less – as little as £1,600 for the hardware (Mac plus card – software is extra on both systems). Designers, architects and multimedia authors will profit, but games companies are also looking at the card with interest – see this issue's free MACGAMER supplement for details of Interplay's plans.

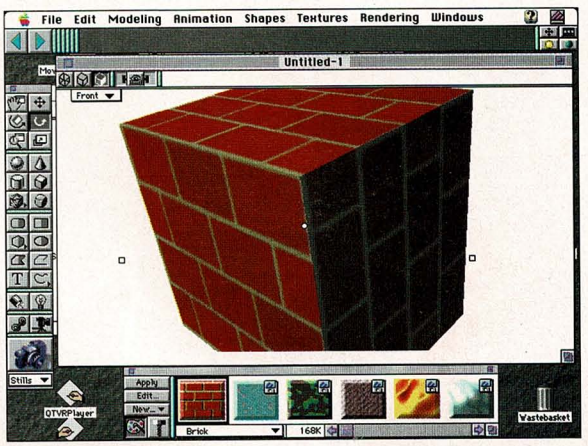
The QuickDraw card fits into any of the new PCI PowerMacs – the 7200, 7500, 8500 and 9500 models. The 7200 is the cheapest of the range at around £1,240, but low-cost Performa models with PCI are due next year. PCI (Peripheral Component Interconnect) is a type of slot being adopted across the entire computer industry, not just in Macs. This means it's proving attractive to upgrade producers, who can make one card to offer to a huge number of people. It can also transfer data faster than the Mac's present NuBus system. For more details on the QuickDraw 3D Accelerator Card, contact Apple on 0800 127753.



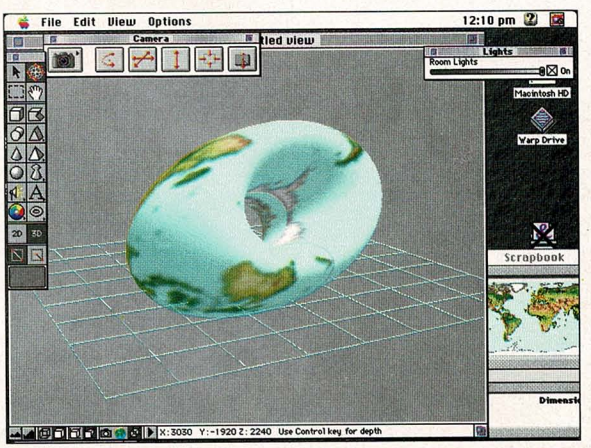
In this playful test program textures can be changed on the fly. The QuickDraw 3D system will lead to more powerful games and multimedia.



With the QuickDraw 3D Accelerator Card, you can make live QuickTime video clips into 3D forms – instantly.



Use the QuickDraw 3D Accelerator Card with 3D programs like *Strata Studio Pro* and your Mac could become a graphics powerhouse.



The Scrapbook is being rewritten to work with QuickDraw 3D – you can drag a texture from there and place it onto a model.

WORDPERFECT FOR SALE

Novell are seeking a buyer for their *WordPerfect* word processor, so they can concentrate more on their main market of business networks. They say talks with an unnamed company have already begun and should be concluded by February next year. Look out for more as the story develops.

Continued on next page

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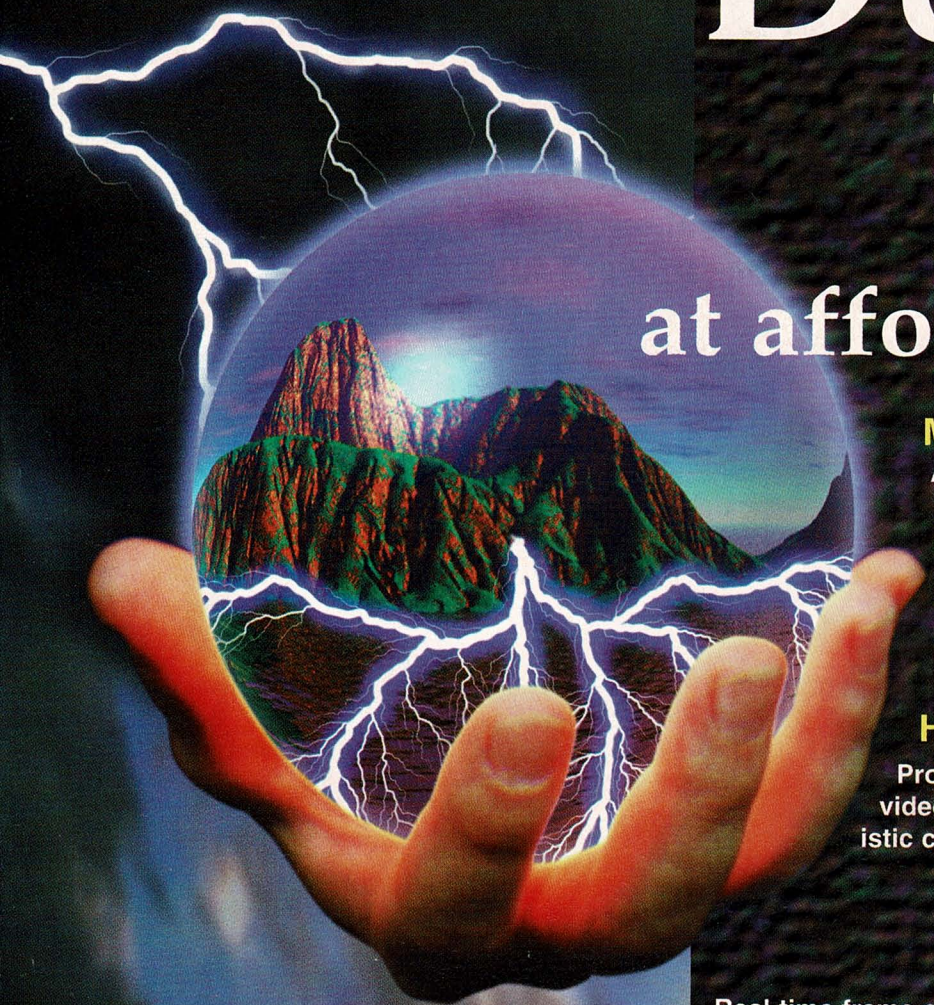

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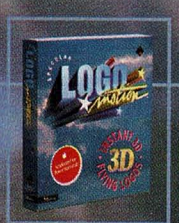

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Christmas Mac blitz

You'll hear a lot about the Mac in the next few weeks – Apple are launching a huge campaign to promote it during the busiest time of the year for computer sales. And as more people buy Macs, you'll also see the benefits as more software becomes available.

Apple are spending £2.5 million to make people aware of what the Mac – particularly the Performa – can offer, with TV and radio adverts alongside newspaper coverage. There'll also be adverts featuring endorsements from directors Oliver Stone and Spike Lee appearing on MTV Europe. The media exposure is supported by a video that potential buyers can request for free. Apple will also be sending demonstrators to shops around Britain to show customers what the Mac can do. This addresses a common criticism from people who are looking to purchase a computer: shop staff, they say, know little about the Mac.

Celebs like Oliver Stone (pictured), Spike Lee and grandmaster of funk George Clinton lend Apple a hand in their MTV campaign.

Education drive

Meanwhile, Apple are also launching a special offer for teachers and a free Mac scheme for schools and parents. They plan to hold a series of presentations for parents at schools nationwide, in which the emphasis will be on making parents more familiar with the Macs that their children use at school every day.

Schools will also be able to join a scheme where parents who buy a Performa can give points to their school. The school will then be able to exchange these for Apple equipment. Apple say that schools will be able to get a free Mac for every 12 Performas bought by parents.

Teachers getting to grips with new technology can also get help with interest-free credit when they buy a Performa, in a related scheme from Apple. The credit offer is open only to teachers, and will be advertised in specialist magazines over the next few weeks. If you're a teacher and you'd like to know more about the evening presentations and Apple for Schools offer, contact Apple on 0800 234834.

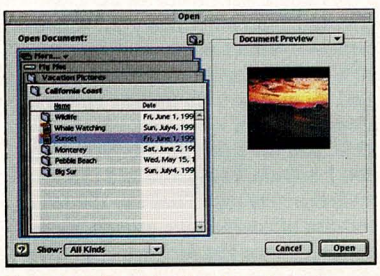
Now! Software

The review of Now! Software's *DateBook and TouchBase* last issue contained a couple of errors. The price is not £81 but £55.80, and the contact number for Now! is in fact 01525 237100.

Next Mac OS delayed

Apple have confirmed what most had long suspected: Copland, the next major version of the Mac operating system, is running behind schedule. Vito Salvaggio, the product manager for the update, recently told industry paper *MacWeek:* 'I wish I could tell you we're going to ship in 1996, but I can't do that.'

Copland is a complete rewrite of the Mac OS, and is designed for PowerMacs and the new Common Hardware Reference Platform (CHRP) computers, which are due next year. Now that CHRP looks likely to appear well before the final version of Copland emerges, System 7.5 is being made ready to work on the new machine.



The next version of the Mac OS, codenamed Copland, has a new look and new features, but it's not coming out as soon as was originally hoped.

Computer firms and police fight chip crimes

The police have recruited several computer firms, including Apple, to work with them on preventing the rising number of computer-related burglaries. The Metropolitan Police estimate that equipment worth up to £200 million has been stolen from businesses this year. Much of this happens when thieves break into an office, open computer cases and steal the memory to sell on, but Macs are also much in demand.

A Joint Action Group has been formed, consisting of police divisions, computer firms and major companies (who are potentially major victims). They are sharing information on the identities of the busiest thieves, and coming up with ideas for preventing the thefts in the first place. One solution involves individually customising memory chips so they work only in the computers they were bought for.

The Metropolitan Police already make several recommendations to help you protect your equipment, including marking computer exteriors and interiors, keeping records of serial numbers and bolting cases to desks.

The consistently high price of chips means they're like gold dust for professional thieves, but action is being taken by the police and companies.

Continued on next page

Apple reject Mac-on-IBM offer

Should the Mac OS be available for other machines as well as the Mac? Apple say not yet, but others may go ahead regardless.

The Mac operating system (OS) has been rewritten to work on other computers. This is according to the small Swiss firm Quix Computer, who have been working on the project. However, Apple have refused to allow Quix to sell copies of their rewritten Operating System.

Quix claim their version of the Mac OS works on a computer known as PReP (PowerPC Reference Platform), which has been designed by IBM and Motorola. PReP machines, based on the same PowerPC chips used in PowerMacs, are on sale but are not setting the world alight. They're seen as a precursor to CHRP (Common Hardware Reference Platform), the joint Apple, IBM and Motorola computer project set to emerge next year.

CHRP will be able to use the Mac OS, but Quix say putting the software on PReP for the time being would enable companies like IBM and Canon to sell Mac OS machines right now, helping Apple get through their current product shortage difficulties (see News last issue).

There are several issues at stake. Can a version of the Mac OS written outside Apple be 100% reliable? And what about the conflict between supporting a computer that will be obsolete the moment CHRP arrives and meeting current demand for the Mac OS? Apple would appear, for the time being, to have erred on the side of caution in making their decision.

Emulation

A second project enabling PC owners to use Mac software *is* going ahead as planned. *Executor* is a Mac emulator for the DOS and Windows systems. An emulator is not a proper version of an operating system; it acts as a translator between an OS and a program written for a different OS. *SoftWindows* is an emulator that enables you to run Windows programs on a Mac, for example – the reverse of *Executor*.

Version 2 of *Executor* is due from American firm ARDI before the end of the year, and although they reckon a typical 486 PC using *Executor* can match the speed of a Quadra, the software is still fairly primitive. ARDI have rewritten Apple's main code from scratch, and significant parts – like the ability to use System 7 or QuickTime – are still missing, but this complete rewrite means Apple do not have to consent to the project, and development continues. For more details, contact ARDI on 00 1 505 766 9115.

Official: Macs cost firms less

Companies that use Macs rather than other computers save money, according to research conducted in the United States. A survey by the Gartner Group finds that firms with Macs spend less money on support – such as training and repairs – than those only with PCs. They also say that firms who use both types of computer won't have to spend any extra money in order to support them both.

The survey says that the bigger the percentage of Macs you have in the office, the less of your income you will have to spend on supporting your computer setup. The cost of support per Mac is around 25% less than the cost for each PC using Windows.

The saving is because Macs are easier to set up and maintain than other computers, and staff training can focus on using the programs rather than mastering the computer.

Is this Mac looking smug? Well, after a glowing report on its low overheads for business, compared to other computers, it's no wonder.

EAsycolor graphics card

In the What's New section last issue, we mentioned the EAsycolor graphic accelerator card. The contact number for distributors IMC should have been 01753 830999.

Mixed blessings in Apple results

More Macs are being bought than ever before, according to the latest figures from Apple. But the company's profits are at a low.

The latest figures are for July, August and September this year. Apple's turnover was $3 billion, an increase of 20% over the same period last year. And more than 1.25 million PowerMacs and Macs were sold, up over 25%. But the firm's profits plunged to $60.1 million, compared to $114.7 million a year ago. They say the fall is because of competitive pricing, meaning they make less for each Mac they sell. The product shortages that have led to a backlog of orders worth almost $1 billion were also a major factor.

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Of course you know Adobe Illustrator™ and Adobe Photoshop™. They're innovative. They're creative. They're brilliant. New PageMaker™ 6.0 from Adobe lives up to the standards they set. Try it. Check out fifty (count them) new features. Create layouts that do absolute justice to your ideas. You won't want to design page layouts in any other way again.

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- Multiple Master Pages
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- Print Fit View
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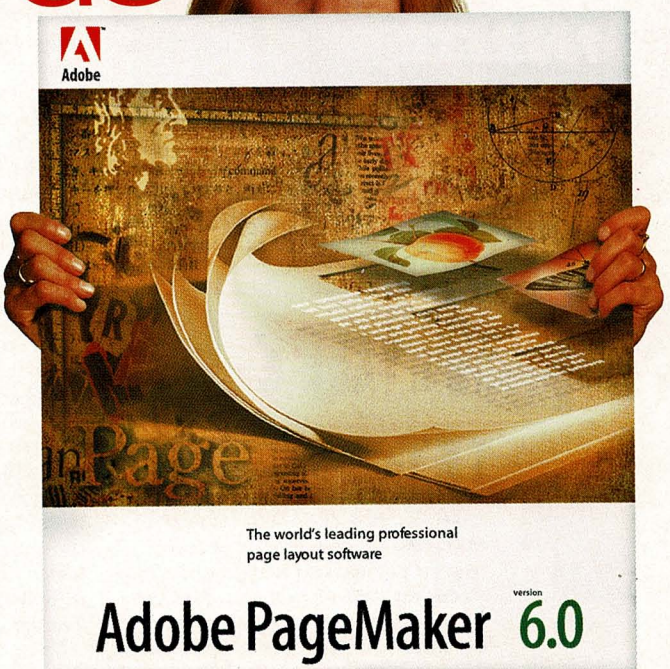

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WHAT'S NEW

The latest version of *Painter* enables you to collaborate over the Net, while Apple offer an all-in-one solution to get you connected. Lindsay Bruce and Richard Hill survey the latest releases.

Painter 4.0

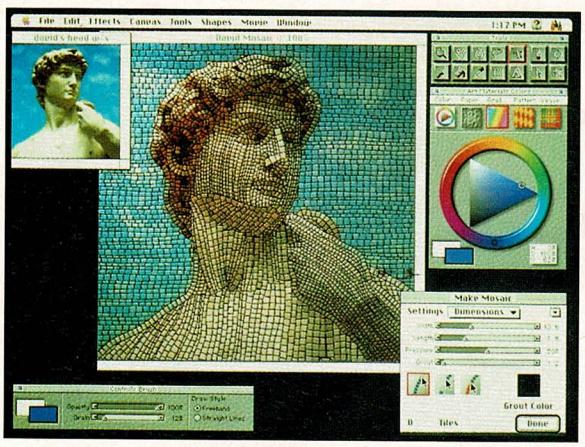
FPU WHO?
A Floating Point Unit is an extra chip (fitted in some Macs, optional on others) that takes over maths-intensive calculations from the main processor. Some software (like spreadsheet applications and image editing programs) needs this extra number-crunching power to do its job properly.

Fractal Design have just announced a new version of their widely acclaimed natural media program, *Painter*. Version 4.0 boasts many new features, including a network option. This means that you will be able to work on the same file simultaneously with other users.

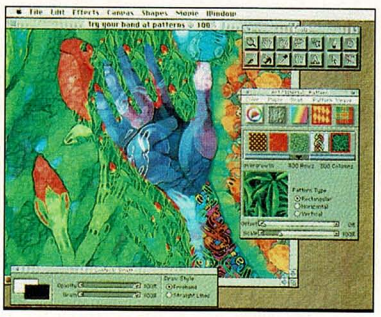
It should even be possible for you to set up sessions over the Internet. This means that artists from different countries can contribute their own ideas to a single painting or design. Although it is only possible for one person at any given moment to apply tools or effects, this feature could revolutionise the way designers work, enabling them, for example, to show clients their work in progress.

The new Shapes feature enables you to mix bitmap and vector graphics within the same picture by placing them on separate layers. Bitmap and vector images are stored by your Mac in fundamentally different ways, making each more suitable for particular art styles. For example, you'll be able to do some work in *Photoshop* and some in *FreeHand*, then bring the two together in *Painter*.

Continuing to produce innovative design tools, Fractal Design have also added a powerful new Mosaic brush to *Painter 4.0*. This tool enables you to 'paint' the effect of mosaic tiles onto a blank canvas or over a scanned image. The tiles can be automatically adjusted in shape and size to fit in with the surrounding tiles.



You can create complex mosaic effects easily with one of *Painter 4.0's* new features. The tiles can be easily adjusted to fit the image.


The popular natural media program *Painter 4.0* retains its distinctive desk-drawer-style control system but adds many new features, from a mosaic effect to a networking option.

- **Price: £440. Out: now.**
- **Requires: LCIII or better, 6Mb of RAM (8Mb of RAM if you have a PowerMac), System 7 or later, a colour monitor (thousands of colours recommended) and 12Mb of hard disk space. FPU (maths co-processor) or PowerMac required for some effects.**
- **For more information contact Computers Unlimited on 0181 200 8282.**

PaperPort Vx

There's a new model of PaperPort, the famed easy-to-use scanner, which received a rating of 86% in issue 28 of MACFORMAT. Scanners are able to convert printed text and graphics into electronic form so that your Mac can display them. PaperPort Vx retains the same basic features as its predecessor – it still scans only in black and white – but can now keep grey tones on images.

PaperPort makes everyday tasks like faxing and filing easier. You simply feed a sheet of paper into the scanner fax-style, then it switches on automatically and scans the sheet in six seconds flat. The software supplied with PaperPort Vx uses a Desktop like the one you use for storing files in folders. The two now work more closely together, enabling you to copy files directly between them.

There are also programs for optical character recognition (OCR) so you can turn printed text into a word processor document, and a business card scanner, which you can use to convert cards into address files for your database.

Everything is designed to be as automatic as possible and the software now runs native on a PowerMac.

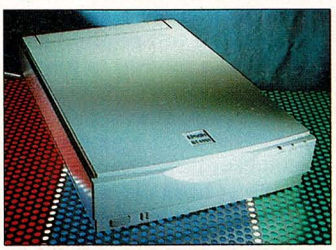
- **Price: £434. Out: now.**
- **Requires: LC or better, 2Mb of free RAM (6Mb recommended), System 7, 6Mb of hard disk space.**
- **For more details contact Computers Unlimited on 0181 200 8282.**

NEW FOR THE MAC

AgfaType 6.0 CD-ROM

Agfa-Gevært have announced the release of their latest typeface compilation, *AgfaType Collection 6.0*. The fonts are in PostScript format, one of the highest in quality around. The collection is on CD-ROM and includes 512 new typefaces in the AgfaType Library and 72 new fonts in the Adobe Library. There are also 112 Creative Alliance Exclusives – fonts created by leading designers and type foundries – some of which are only available from Agfa. With 3,600 fonts, Agfa say this is their largest AgfaType collection to date. Contact Agfa InfoCentre on 0181 231 4200.

Epson GT5000 scanner



Epson's new GT5000 flatbed scanner is faster and more compact than its predecessor, the GT6500.

The entry level GT6500 flatbed scanner has been replaced with a new model, the GT5000. Epson say that the GT5000 is 30% smaller and twice as fast as its predecessor. With a flatbed (photocopier-style) design, it can scan in 24-bit colour – a graphics format that can display millions of colours.

While the GT5000 scans at 300dpi (dots per inch), which is less than many scanners these days, it uses clever technology to work out and simulate finer details to give an end result of 2,400dpi.

Bundled with Adobe's *Photoshop LE* and Xerox's *TextBridge* optical character recognition software, the street price should be around £350. For more details contact Epson on 01442 61144.

Prince of Persia CD Collection

Brøderbund are releasing the classic swashbuckling arcade-adventure game *Prince of Persia* and its sequel *Prince of Persia 2: The Shadow and the Flame* on a single limited edition CD-ROM for £19.99.

Much acclaimed for their smooth animation, the games feature the work of animator/designer Jordan Mechner, who based the characters' movements on human models. They're also notoriously difficult, requiring a lot of practice to time the rooftop jumps correctly. *The Prince of Persia CD Collection* is due for release this month. Contact Brøderbund on 01429 273029.

Reno CD-ROM offer

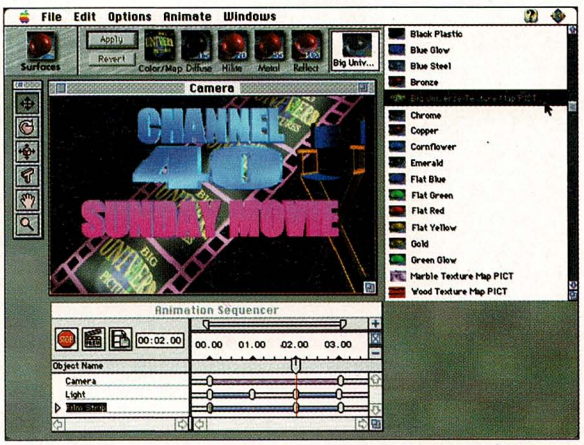
Gasteiner are offering Media Vision's Reno double-speed CD-ROM drive for the special Christmas price of £153 (the usual price is £411). Designed to look like a portable CD player, the Reno can also be used to listen to music on the move. The offer is open until Monday 15 January 1996. Contact Gasteiner on 0181 345 6000.

LogoMotion 2.0

Specular International, the company behind *Infini-D*, have announced version 2.0 of their popular 3D modeller *LogoMotion*. It's a program specifically for animating logos, like the kind you see on many TV shows. The look of the program has been revamped to include drag-and-drop application of surfaces and textures to any 3D model you're working on. It also now enables you to place animations on a 3D model in the same way as you would a texture.

A new control bar provides quicker access to frequently used tools and effects, and extensive use is made of sliding control bars, making fine-tuning adjustments easier. Other new features include a Phong rendering option, usually found in more powerful packages. Phong is one of the systems used to calculate the light and shade of a picture, and enables you to create more realistic 3D objects and textures. You can also get a quick preview of your finished work with a Draft Mode – use this before you spend time on a fully-detailed piece.

There's a CD-ROM containing over 500 StageHands – sets of camera and lighting positions – which you can call up quickly and easily to assemble an image in minutes, and you can now create your own custom versions. The CD also includes libraries of pre-made models and animations.



The new, friendlier *Logomotion* enables you to create graphic animations with type.

■ Price: TBA. Out: December.
■ Requires: Mac II with FPU, 8Mb of RAM, System 7 or later and a 13-inch colour monitor.
■ For more details contact Gomark on 0171 731 7930.

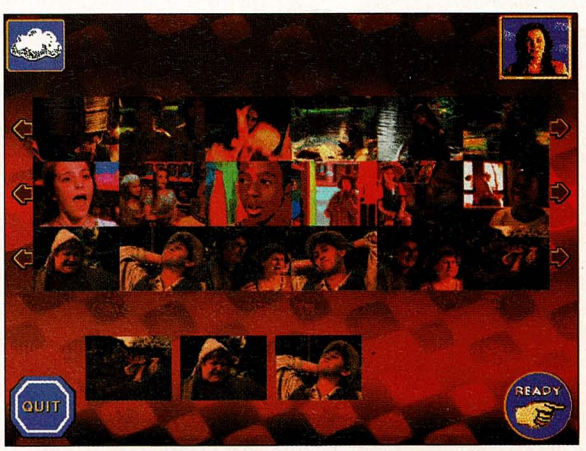
What's My Story?

Bringing traditional story-telling into the CD-ROM age, *What's My Story?* could perhaps be best described as *Adobe Premiere* for tots. It's a disc full of short video clips of different events and characters, which you can assemble in any order using step-by-step guidelines and even a simple video-editing system.

The idea is that you speak into a microphone while video clips play, then the software merges it all together with your chosen sound effects and music to make a mini-film. It offers several ways of selecting the video clips you want to use, each of which encourages you in a different way to construct a story.

There are several tales supplied on the disc for you to watch – in fact, it's the hundreds of components in these stories that are broken up for you to play with. Look out for a review of *What's My Story?* in MACFORMAT soon.

■ Price: around £35. Out: now.
■ Requires: LCIII or better with 3Mb of free RAM, System 7, a 13-inch, 256-colour screen, a Mac-compatible microphone and a double-speed CD-ROM drive.
■ For more details contact Acclaim on 0171 344 5000.



With *What's My Story?* you can make up your own stories, adding narration, music and sound effects to movie clips you've chosen yourself.

Apple Internet Connection Kit

Apple's all-in-one kit gives you all the programs you need to get on the Internet, including the popular *Netscape Navigator* Web browser.

If you're baffled by the Internet but would still like to try it out, Apple claim their Internet Connection Kit can help get you going in 30 minutes. It's a collection of essential programs and utilities to get you on-line.

The £59 price includes the cost of opening a line to the Net via the Pipex network, one of the most extensive in the country. You'll still need a modem to enable you to use the phone line to make the connection, but everything else you need is here.

The programs include *Netscape Navigator,* the leading World Wide Web browser; *Claris Emailer Lite* for sending, receiving and organising e-mail messages; *Fetch* for loading software from the Net with File Transfer Protocol (see our introduction to FTP on page 67); and *Newswatcher* for joining in discussion on the lively newsgroup circuit (see our feature on Usenet last issue).

Extra utilities include *RealAudio Player,* which can play sound samples from the Net without having to load them onto your hard drive first; *Acrobat Reader,* the Adobe program that enables you to read high-quality electronic documents; and the *QuickTime VR Player* for viewing video and 3D clips you'll find on the Net.

Many of these programs are free or available elsewhere, but you won't get that one-box convenience. As you install the software, you're taken through step-by-step instructions by an Apple Guide program, which shows you exactly what you need to do.

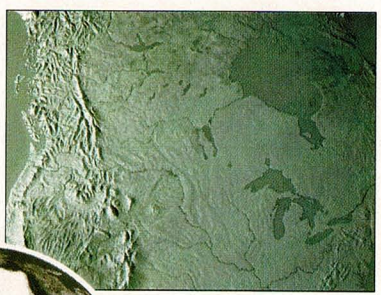
■ Price: £59 including Pipex connection, plus a subscription fee (from £17.63 a month) to keep the connection. Out: late November.
■ Requires: any Mac, 8Mb of RAM, System 7.5 or later, a modem (14,400bps or faster recommended), 10Mb of hard drive space.
■ Contact Apple on 0800 127753.

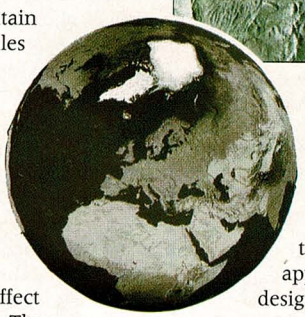
Terra Forma

Terra Forma is a collection of high-quality image files on five CD-ROMs, enabling you to create your own maps for design or reference works.

Clearly a tool for the professional technical illustrator, *Terra Forma* enables you to produce top-quality maps. It's a collection of intricately-detailed images on a set of five CD-ROMs, which you can use to design customised maps for your own particular needs.

Three of the discs contain high-resolution image files of all parts of the globe. These photographs were taken from an enormous model of the earth, although they're not quite to scale – the model-makers exaggerated the size of mountains to create a more pleasing effect once photos were taken. There are 83 files in all.

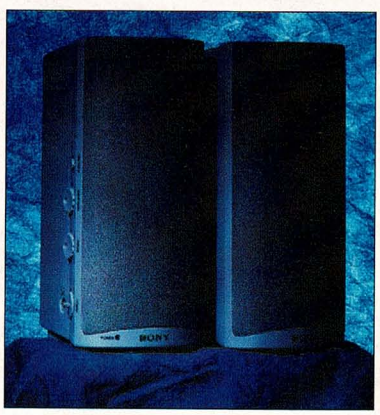




The other CD-ROMs contain information files in both *FreeHand* and *Illustrator* format. These can be used as overlays on the images, enabling you to create political-style maps showing country borders or towns. This multi-layered approach means you can design the map exactly to your specifications.

■ Price: £1,052. Out: now.
■ Requires: any colour Mac and an image editing program such as *Photoshop, Illustrator,* or *Color It!*.
■ For details contact Andromeda Interactive on 01235 529595.

Sony's new multimedia speakers promise to give your presentations, games and audio CDs that bit more *oomph.*



Sony SRS-PC91 speakers

Audio visual giants Sony have just launched a multimedia speaker system designed to work with the increasingly sophisticated CD-ROM and sound circuitry in your Mac. Expected to retail at around £150, it's designed to add that essential extra dimension to things like games and video-heavy multimedia.

The SRS-PC91 speaker system is rated at 10 watts per channel and has a built-in amplifier and bass-reflex system so you get louder *thoooms* (bass noises!). Two stereo inputs are provided, along with a Headphone Out jack, volume control, and bass control.

■ Price: £150. Out: now.
■ Requires: any Mac with sound-output socket.
■ For more details contact Sony Computer Peripherals and Components UK on 0181 760 0500. MF

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In minutes.

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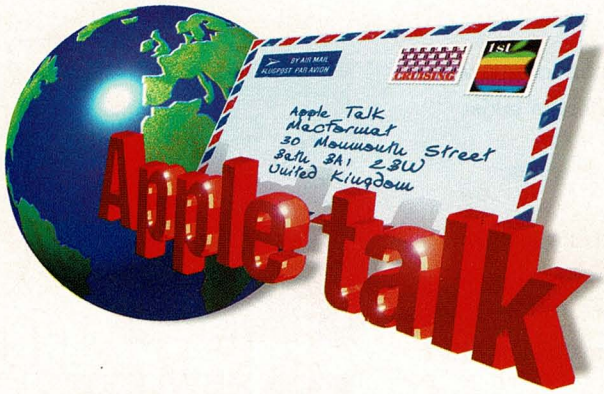


Christmas is a time for joyful tidings, so only nice letters this issue. Write to Alex Summersby, AppleTalk, MACFORMAT, 30 Monmouth Street, Bath BA1 2BW.

BAUBLES?

Every letter and postcard published on these pages wins a MACFORMAT binder. If you need more to hang all over your festive shrubbery, you can turn to page 123 and order your own – or indeed a boxful, if your greenery is particularly bare (and particularly sturdy, for that matter).

Deck the halls (or wreck the walls, as we used to prefer singing at the tops of our voices) with letters, and you can decorate your tree with an exclusive MACFORMAT binder for each letter published.

Registering shareware

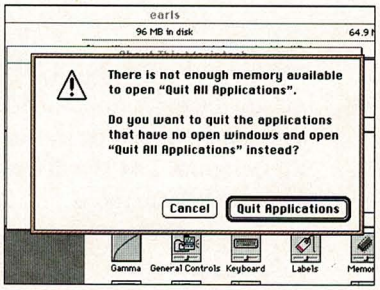
NO PROBLEMS

I was interested to read the comments by Dr Harry Merl in MACFORMAT 27 about problems registering shareware, and in particular *ZTerm*. I had the opposite experience.

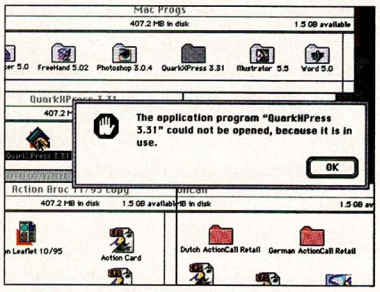
Although it cost Aus$10 to purchase US dollars, I was good and registered the program. I was pleasantly surprised to receive by snail mail a letter from the author, David Alverson, acknowledging receipt of registration. He also gave a telephone number for support, and listed the on-line services that he supports. He noted that release 1.0 was available in beta form from him or on-line – I have since picked up a copy from a local BBS. I have also successfully registered *Compact Pro* and received acknowledgement.

Brian Browes
(Another token Australian)
Mosman Park, Western Australia

Isn't life good to you when you do the right thing? And may I just say how pleasant it is to welcome back the MACFORMAT token Australian? Good to see traditions being kept up, especially at this time of year...



Silly Things Your Mac Says, number 421 in a series. This one's from Steve Rogers, via e-mail.



And this is from Ray Preston. Hit **[command] [shift] 3** and send us your screen grab!

A small letter of thanks

GLAD TO BE OF SERVICE

I am writing with many thanks for not only a great magazine but for inspiring me to get connected. As a result I am now a fully-fledged Net nerd and proud of it. Thanks!
PS My girlfriend now hates the sight of your magazine.

Chris Wilson
via FutureNet

You're welcome. I think.

Wonders a mouse-click away

AND JOY TO THE WORLD

You lot at MACFORMAT! Please do not desert us original Mac users – I own a black and white Performa 200. In recent months you have included shareware programs on your Cover Disks, stating that they only work on a colour Mac. To my amazement I have found that many of these programs do work in mono, and that my little old loyal Mac can cope with these 'sophisticated' programs.

Please do try these programs on both colour and mono Macs. I bet you don't even have a black and white Mac in your office! If you wrongly say that programs will only work in colour, many readers will not bother trying them, when wonders can be lying literally a mouse-click away.

Muntazir Datoo
Stanmore, Middlesex

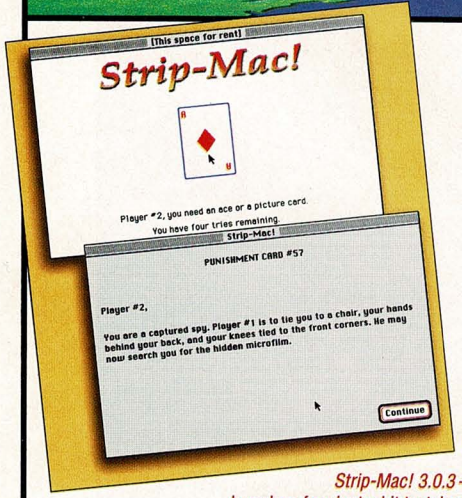
I'm proud to say that we've given a home to a Classic II in the office, but with so many shareware programs on our Discs we can't possibly test them all on every machine. We rely on the Read Me files written by the programmers themselves for details of which machines their programs are designed to work on. If you find you can run them, it's yet more proof that there are wonders just waiting to be discovered.

Mac goes to Hollywood

CELEBRITY SPOTTING

I look forward to every issue of MACFORMAT. I thought once I got a full Net connection, I wouldn't need your mag any more because I could get the CD software 'direct from source'. Turns

PORN ON THE MAC


[This space for rent]
Strip-Mac!
Player #2, you need an ace or a picture card.
You have four tries remaining.
Strip-Mac!
PUNISHMENT CARD #5?
Player #2,
You are a captured spy. Player #1 is to tie you to a chair, your hands behind your back, and your knees tied to the front corners. He may now search you for the hidden microfilm.
Continue

Strip-Mac! 3.0.3 – harmless fun; just a bit tasteless and tacky; or a dangerous advocate of promiscuity?

Dear MACFORMAT,
Or should I say, Mac-'porn'-mat!

I write this letter at the risk of being dubbed as prudish or a religious nutter (time will tell). I am a Christian, and as such I believe that sex should be enjoyed from within the bounds of marriage. However we live in a free society and it is up to each individual to decide how they are going to live their life. What has this to do with MACFORMAT? Well, I was somewhat concerned at the inclusion of *Strip-Mac 3.0.3!* in the Shareware section of your CD-ROM in issue 29.

Now, this may seem to you to be just a bit of harmless fun, but do we really need it? With two out of three marriages ending in divorce, do we need a piece of software that advocates promiscuity? I think not, especially in these days of AIDS and the like.

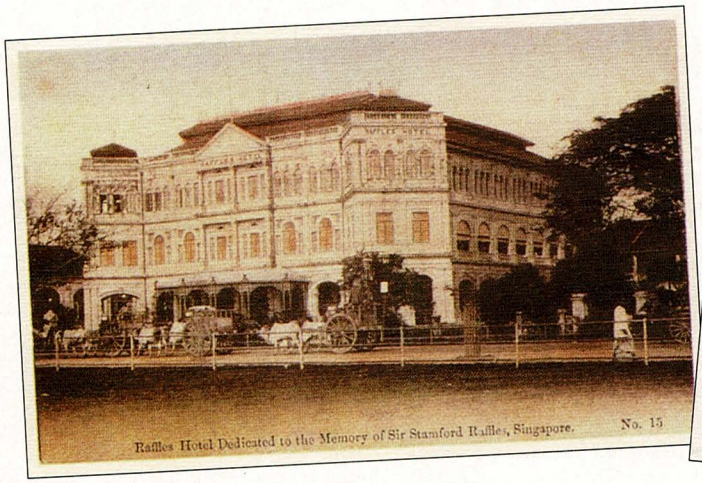
Also, how many children buy MACFORMAT? It's not exactly a good role model for them, is it? I notice too that more and more adverts are cropping up for soft porn CD-ROMs...

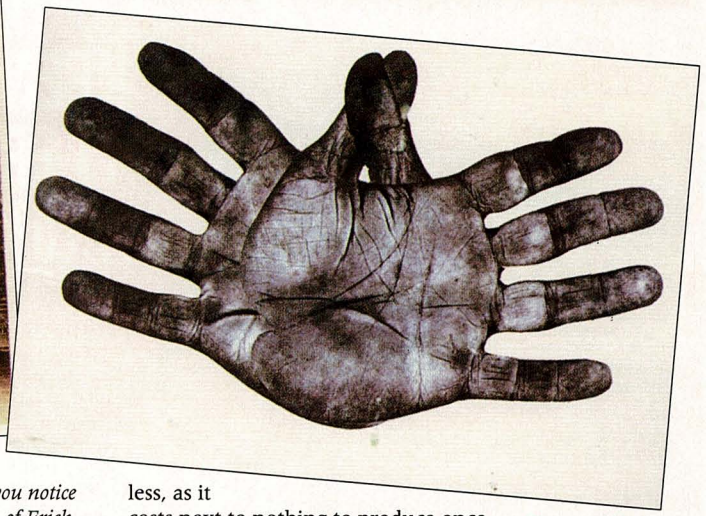
Er, sorry, if people must be free to buy what they want – freedom of choice, etc – then why not go the whole hog and list all the best porn sites on the Web? You could even have a 'page 3' Web girl of the month! I mean, kids are not affected by what they see or read, are they?

We are always going to have porn, but let's keep it out of an otherwise excellent magazine. I await the deluge!

Tony Wighton
London SW11

The deluge of responses from other MACFORMAT readers, I assume you mean, not another Flood (no matter how wicked we are)... As ever, comments are very welcome. We do try to bear in mind that a broad range of people read the magazine and that these sorts of subjects can easily offend some, but we'd be interested to know how many readers felt that Strip-Mac *stepped over the mark.*





Two more MACFORMAT binder winners: a (reproduction) 1915 postcard of the famed Raffles Hotel, Singapore, sent in by Chris Doe of Keilor, Victoria, Australia, who signs himself 'a dedicated fan' (he must be – he sent us this card on his honeymoon); and 'an image made by a mental health service user *[a dubious Politically-Correct euphemism if ever we've heard one]* in the Hackney Arts Initiative's Art Workshop Programme', sent in by Mr G J and Mrs K L Slay of Chichester. Remember, whenever you write to MACFORMAT or enter a competition, an eye-catching postcard could win *you* a binder too!

out, after missing a couple of issues, I actually missed you guys! :-)

In your July issue (we get them *really* late here in Canada), a letter writer talked about Macs she's seen on TV. Well, here direct from the horse's mouth is a list of movies that Macs are in and their US release dates:

- *Hackers*, released September 15, features assorted Mac equipment.
- *Empire Records*, released September 22, features Desktops.
- *The Assassins*, released October 6, features PowerBooks.
- *Get Shorty*, released October, features a PowerBook.
- *Copy Cat*, released October 13, features a PowerMac.
- *Fair Game*, released October 27, features Desktops and PowerMac.
- *The Big Green*, released October, features Desktops.
- *The American President*, released November 17, features PowerBooks and Desktops.
- *Sabrina*, released December, features PowerBook and Desktops.
- *Twelve Monkeys*, released December, features Desktops.
- *Heat*, released December 8, features PowerBooks and Desktops.
- *Grumpier Old Men*, released December 22, features PowerBook.
- *Waiting to Exhale*, released December, features PowerBooks and Desktops

S M King
King Infomedia
Canada, via FutureNet

Can't wait. Isn't it heartwarming to know that your machine is a celebrity? And, our cartoonist Bob Lynch adds, did you notice the Mac Classic at the beginning of Erich Rohmer's A Tale of Springtime? *Macs are good enough for art films too, you know! (But I do wonder how many of these US movies are going to go 'straight to video' here in the UK because they turn out to be rubbish? Oops, the Christmas spirit seems to be slipping a bit there...)*

Find that Filter!

SO VALUABLE IT'S HIDDEN?

In your feature on image restoration in MACFORMAT 28, you say that *Photoshop's* Dust and Scratches filter is invaluable. Where could I find it?

Dr Guy Parmentier
France

The Dust and Scratches filter comes as standard with version 3 of Photoshop. *If you have that version, you'll find it in the* ***Filters*** *menu, but you ought to mask a selection of your image to apply it.*

A word on dictionaries

NOT ON YOUR GIFT LIST THEN?

I find myself wishing for the CD-ROM *Oxford English Dictionary*, but I simply won't pay and can't afford the £425 plus VAT that they want for it – that's the price for the full paper set (24 volumes, I think? A large portion of a fully matured tree, anyway). That's ludicrous! I remember they used to sell the two-volume photographically reduced version with magnifying glass for about £85, and that is the sort of price the CD-ROM ought to be, if not less, as it costs next to nothing to produce once it has been transferred to the master copy. And that way they'd sell a whole lot more copies to eager users out in the real world, cutting into the market of the other, lesser dictionaries. Given the choice, and with the *Oxford English Dictionary* at under £100, who would want anything else?

But at the standard price of the full-sized paper volumes, they are doing no one any favours – least of all themselves in terms of decent sales. It will remain the elitist publication it has always been, out of the reach of the people who most need to have ready access to it – struggling authors who might benefit greatly from owning the most comprehensive dictionary of the English language.

It is no wonder people complain about the standard of English in modern books. Here is one golden opportunity to make a positive contribution to how information technology ought to benefit us at the end of the 20th century, and it's been blown well and truly by corporate greed.

Alex Lewis
Oswestry, Shropsire

Right on! And look at the price of games too – outrageous. And joysticks. Books, too, come to think of it. I mean, the price of paper is scandalous – how much can it cost to grow a tree anyway? It's all the fault of those greedy corporate capitalists who don't give a damn for the struggling workers – er, I mean authors.

Christmas? Bah, humbug! **MF**

HOW TO GET IN TOUCH WITH MACFORMAT

- Our address for letters is on the previous page – the shorter your letter, the better its chances of being printed. Longer letters may be published in our regular 'Talking Point' section (on page 143 this issue). If you'd like a letter included in 'Readers' Corner' on our CD-ROM, make sure it contains no defamation or obscenity, then send it in as a *TeachText* document on a disk marked 'MACFORMAT Readers' Corner'. Include your name and address, and note that we can't return your disk.
- Our fax number is 01225 446019. Please write 'MACFORMAT' prominently at the top so our receptionists can tell which of Future Publishing's 40 magazines to forward it to.
- E-mails are welcome at: **macformat@futurenet.co.uk** or **macformat@cix.compulink.co.uk** Or via AppleLink it's simply: **MacFormat**
- Sorry, but personal replies to letters, faxes or e-mails are impossible – we're flat out trying to get the magazine out every four weeks!
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- The legal bit, since you've read all the way down to here: all correspondence sent to our editorial address (by mail or any electronic means) will be considered for publication unless you specifically state otherwise, and we reserve the right to edit published letters for reasons of space, clarity or legality.

NEW GH 'PLUS-2' PACKS WITH EXTRA VALUE SOFTWARE NOW AVAILABLE - FREE!!!

68040 MACS

Apple Authorised Reseller & Service Provider

KEEN PRICES, 11 FREE CDs, JUST 10%* DEPOSIT

*see below

THEN... PAY NOTHING FOR THE NEXT 5 MONTHS! PERSONAL CALLERS TO OUR STORE CAN TAKE ADVANTAGE OF OUR DEFERRED PAYMENT PLAN* WHILST BUSINESSES ARE OFFERED A GH FINANCE SCHEME TOO+

NEW GH 'PLUS-2' PACKS WITH EXTRA VALUE SOFTWARE NOW AVAILABLE - FREE!!!

POWERMACS

PERFORMA 630s FROM...

ONLY... £729 (£856.58 inc. VAT)

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ALL GH Performa 630 Bundles are supplied with... System Software, At Ease, Claris Works, Manuals, Mouse, all Connecting Cables etc and options for Apple 14" or 15" Colour Monitors and Apple Design Keyboard etc.

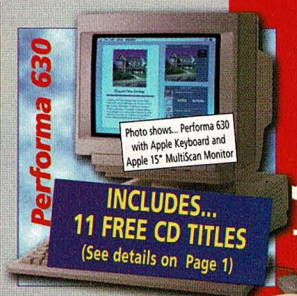


Photo shows... Performa 630 with Apple Keyboard and Apple 15" MultiScan Monitor

INCLUDES... 11 FREE CD TITLES (See details on Page 1)

NEW... IBM PC Compatible 630 includes a 486 DOS Card operating at 66MHz with MS DOS Software and now Windows FREE too! ASK GH FOR FULL DETAILS

(Please note - 630s with DOS cards can't utilise the MPEG expansion card)

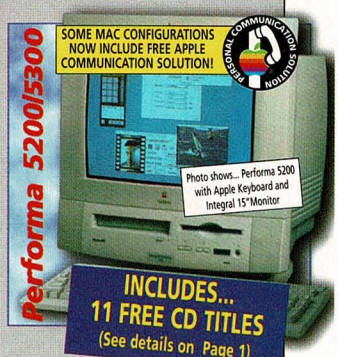
PERSONAL CALLERS • PAYMENT PLAN FOR BUSINESS USERS • %

5200s FROM...

£1379 (£1620.33 inc. VAT)

OR JUST... £10.91 PER WEEK (When Spending Over £750+)

All our Performa 5200's & 5300'S are supplied with... System Software, At Ease, Claris Works, Manuals, Mouse, Connecting Cables, Apple Design Keyboard options etc.



SOME MAC CONFIGURATIONS NOW INCLUDE FREE APPLE COMMUNICATION SOLUTION!

Photo shows... Performa 5200 with Apple Keyboard and Integral 15"Monitor

INCLUDES... 11 FREE CD TITLES (See details on Page 1)

PERFORMA 630 'PLUS-2' MULTIMEDIA BUNDLE

Superfast 66/33MHz 68LC040 CPUs! Some feature built in 'Video in TV Tuner' which can input video from VCRs etc. and cut & paste between the two, plus... you can watch TV in a window on your Mac. And... there's an IBM PC Compatible Model too!

When you buy a 630 Multimedia 'PLUS-2' you are also...

FREE MULTIMEDIA SOFTWARE

SUPPLIED WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2

PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", ELECTRONIC ARTS 3D ATLAS, GROLIER MULTIMEDIA ENCYCLOPAEDIA, MAKING MUSIC, MYST, REDNEX, ROCK-RAP-ROLL, SNOOPY and DAEDELUS ENCOUNTER...ALL CD ROMs!!!

AND NOW WITH THE GH 11 CD TITLE PACK

ABSOLUTELY FREE!

PERFORMA 630 'PLUS-2' MULTIMEDIA SYSTEMS...

RAM	HD	Built-In	Monitor	CD	Keyboard	Price
8Mb	500Mb	✘	✘	✔	✘	£729 (£857)
8Mb	500Mb	✘	14" Performa Plus	✔	✔	£999 (£1174)
8Mb	500Mb	✘	15" MultiScan	✔	✔	£1099 (£1291)

NEW... FREE GH SOFTWARE 'PLUS-2' PACKS

Look on this advert for our NEW...MULTIMEDIA 'PLUS-2' and see just how much you get from GH FREE!

'PLUS-2' PACKS COME WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2

PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER ENCYCLOPAEDIA, MAKING MUSIC, REDNEX, ROCK-RAP-ROLL, SNOOPY MYST and DAEDELUS ENCOUNTER... ALL CD ROMs!!!

MACS WITH TV OPTION ALSO COME WITH... AVID VIDEO SHOP & APPLE VIDEO PLAYER

Photo shows... SAMPLES OF FREE SOFTWARE included with GH MACS on these pages. NB. Some titles are pre-installed & ready to use and are NOT packaged as displayed here. CD Disks are provided separately.

MACS WITH MPEG OPTION ALSO COME WITH... OCEAN LIFE HAWAII, RETURN TO ZORK, WARREN MILLER & WILD AFRICA

REMEMBER OUR 'PLUS-2' BUNDLE WHEN COMPARING PRICES!

PERFORMA 5200/5300 'PLUS-2' MULTIMEDIA BUNDLES

A choice of two ALL-IN-ONE PowerMac Systems. The 5200 incorporates a 75Hz PowerPC 603 CPU and the 5300 a 100MHz 603 CPU. Both feature CD600i Drive, Integral 15" MultiScan FST Colour Display, Stereo Speakers, 800 Mb Hard Drive, Built-In Micro-phone and Infra Red Remote Control (TV versions only) - ALL IN ONE! Also includes... Mouse, Connecting Cables, Manuals etc. and the new,, MultiMedia 'PLUS-2' Bundles detailed below offering you EXTRA VALUE with the addition of great software. The higher spec units also boast built-in TV with full infra red remote control of Start Up/Shut Down/TV and CD Functions. Infra red can be added to other 5200/5300's Macs with the Apple TV Upgrade Kit.

FREE MULTIMEDIA SOFTWARE

SUPPLIED WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2

PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER MULTIMEDIA ENCYCLOPAEDIA, MAKING MUSIC, MYST, REDNEX, ROCK-RAP-ROLL, SNOOPY and DAEDELUS ENCOUNTER...ALL CD ROMs!!!

MODELS WITH TV FACILITY INCLUDED ARE ALSO SUPPLIED WITH... AVID VIDEOSHOP & APPLE VIDEO PLAYER TOO!!!

MODELS WITH MPEG BUILT-IN ALSO COME WITH... AVIDOCEAN LIFE HAWAII, RETURN TO ZORK, WARREN MILLER & WILD AFRICA!!!

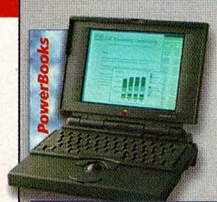
AND NOW WITH THE GH 11 CD TITLE PACK

ABSOLUTELY FREE!

PERFORMA 5200/5300 'PLUS-2' MULTIMEDIA SYSTEMS...

	RAM	HD		MONITOR	CD	TV	K/B	Price
5200	8Mb	800Mb	✔	15" MS Int. FST	✔	✘	✘	£1379 (£1620)
5200	8Mb	800Mb	✔	15" MS Int. FST	✔	✘	✔	£1449 (£1703)
5200	8Mb	800Mb	✔	15" MS Int. FST	✔	✔	✔	£1549 (£1820)
5300	16Mb	1200Mb	✔	15" MS Int. FST with MPEG	✔	✔	✔	£1999 (£2349)

MAC POWERBOOKS



PORTABLE SAVINGS

PB190 FROM...£1099 (£1291.33 inc. VAT)

OR JUST... £8.70 PER WEEK (When Spending Over £750+)

POWERBOOK PORTABLE MACS

The 190 model offers entry into the acclaimed world of PORTABLE MAC POWERBOOKS! These latest models are still very affordable but give massive upgrade potential and feature... PCMCIA Slot, Large Display, Expansion Bay and an upgrade path to include features of the Powerbook 5300 range and optional MS DOS/Windows Emulation too!

190/66 - 4/500 + Claris Works 3, Route 66 and Mobility Pack	£1099	(£1291)
190/66 - 8/500 + Claris Works 3, Route 66 and Mobility Pack	£1249	(£1468)
190cs/66 - 4/500 + Claris Works 3, Route 66 and Mobility Pack	£1449	(£1703)
190cs/66 - 8/500 + Claris Works 3, Route 66 and Mobility Pack	£1599	(£1879)

FREE... SOLITAIRE, SPIN DOCTOR, SUPER MAZE WARS PreLoaded on ALL PowerBook 190s

NEW POWER PC - POWERBOOK PORTABLE MACS

The PowerBook 5000 range offers the most advanced notebook technology around, making them ideal for high performance users. Each model in the range boasts the new Power PC 603e CPU for unsurpassed speed, built in PCMCIA Slot, Expansion Bay, InfraRed Technology and much more! The new Duo 2300c/100 brings RISC technology to Apple's smallest PowerBook with 603e Power PC CPU and allows 'Docking' for access to capabilities of a Desktop System - And... you can add MS DOS/Windows Emulation too!

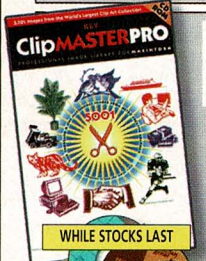
5300/100 - 8/500 + Mobility Pack	£1489	(£1750)
5300cs/100 - 8/500 + Mobility Pack	£1849	(£2173)
5300cs/100 - 16/750 + Mobility Pack	£2349	(£2760)
5300c/100 - 8/500 + Mobility Pack	£2449	(£2878)
5300c/100 - 16/750 + Mobility Pack	£2949	(£3465)
5300ce/117 - 32/1100 + Mobility Pack	£4549	(£5345)
DUO 2300c/100 - 8/750	£CALL	(£Call)

FREE... SOLITAIRE, SPIN DOCTOR, SUPER MAZE WARS PreLoaded on ALL PowerBook 5300s

POWERBOOK ACCESSORIES & SOFTWARE

PB 190 - Infra-Red Upgrade Kit	£40	(£47)
PB 190 - 8 Bit Video Out Kit	£75	(£88)
PB 150/Duo 230 - 4Mb RAM Upgrade	£166	(£195)
PB 140/45,150,160/65,170,180/c - Battery	£43	(£50)
PB 500 - 4Mb RAM Upgrade	£171	(£200)
PB 500 - Express Modem	£325	(£381)
PB 500 - PCMCIA Expansion	£113	(£132)
PB 500 - Type III Intelligent Battery	£90	(£106)
Duo - Dock Plus inc. 230HD & VRAM	£622	(£730)
Duo - External 1.44 Mb Floppy Drive	£94	(£110)
Duo - Floppy Drive Adaptor	£81	(£95)
Duo - Deluxe Leather Carry Bag	£120	(£140)
Duo - Type III Rechargeable Battery	£77	(£90)
Powerbook (non Duo) - Security Kit	£26	(£30)
All Powerbooks - Norton Essentials	£81	(£95)
GSM Mobile FAX Pack for 500 Series Powerbooks	£975	(£1146)

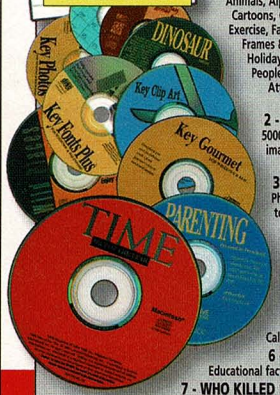
NEW... PCMCIA/GSM Mobile Phone Interface for POWERBOOK 500 Series - SOME PACKS EVEN INCLUDE MOBILE PHONES!! CALL GH NOW FOR DETAILS!



WHILE STOCKS LAST

EXCLUSIVE GH 11 FREE CD TITLES

BUY ANY MAC WITH A AND THIS SUPERB CD COLLECTION IS YOURS



1 - CLIP ART CD LIBRARY Thousands of images for any program that supports TIFF format. Subjects include... Animals, Alphabets, Business, Cartoons, Computers, Sport, Exercise, Fashion, Travel, Food, Frames & Borders, Health, Holidays, Special Events, People, Religion, Retail Attention Getters and MORE!

2 - KEY CLIP ART 5000 more TIFF clip art images to use straight from CD ROM.

3 - KEY PHOTOS Photographic images to liven up all your documents.

4 - KEY FONTS PLUS Lots of extra letter styles for your Mac.

5 - INSTANT CALENDAR Calendars made easy!

6 - DINOSAUR Educational facts and fun for all!

7 - WHO KILLED SAM RUPERT An adventure of mystery and suspense as you turn detective on your Mac!

8 - WILD PLACES Take a CD journey into some remote USA areas!

9 - KEY GOURMET Some tasty recipe ideas all quickly accessed on your CD (NB. Key Gourmet may not be compatible with all Mac configurations - please check with GH before you order)

10 - PARENTING Everything from fertility to childbirth.

11 - TIME - Man of the Year A magazine on CD! - Fascinating!

APPLE PERSONAL COMMUNICATIONS SOLUTION

PERSONAL COMMUNICATION SOLUTION

Some Macs are now supplied with Apple's Personal Communications Solution (wherever marked with this logo [shown left] on our advert) - It gives you access to FAX (both send & receive), ANSAPHONE SOFTWARE and, via eWORLD, access to INTERNET services. All available from your Mac with NO FUSS!

6200s FROM...

£859 (£1009.33 inc. VAT)

OR JUST... £6.80 PER WEEK (When Spending Over £750+)

INCLUDES... 11 FREE CD TITLES (See details on Page 1)

PERFORMA 6200 'PLUS-2' SYSTEMS AND SOFTWARE

All GH 6200 'PLUS-2' Packs incorporate, CD600i Drive, 500Mb or 800Mb Hard Drive, Built-In Speakers, Infra Red Remote Control (TV versions only), Mouse, Cables and Manuals plus Apple Design Keyboard options. All our Performa 6200 'PLUS-2' Packs are supplied with... System Software, At Ease, Claris Works, Manuals, Mouse, Connecting Cables etc, Monitor & Keyboard options and, just like 5200/5300s, FEATURE... the PowerPC 603 CPU!

SOME MAC CONFIGURATIONS NOW INCLUDE FREE APPLE COMMUNICATION SOLUTION!

Photo shows... Performa 6200 with Apple Keyboard and 15" MultiScan Monitor

REMEMBER THE GH MULTIMEDIA 'PLUS-2' BUNDLE WHEN COMPARING OUR PRICES TO OTHER DEALS!

PERFORMA 6200 'PLUS-2' MULTIMEDIA BUNDLE

When you buy a GH 6200 Multimedia 'PLUS-2' you are also...

FREE MULTIMEDIA SOFTWARE

SUPPLIED WITH... ClickArt, eWorld, Hypercard Player, MacGallery, Mavis Beacon, Millie's Maths House, Performa 7.5 System Software, PC Exchange, Spin Doctor, SuperMaze Wars and Thinkin' Things 2

PLUS... ASTERIX LANGUAGE, CONCERTWARE, DORLING KINDERSLEY "The Way Things Work", EA 3D ATLAS, GROLIER MULTIMEDIA ENCYCLOPAEDIA, MAKING MUSIC, MYST, REDNEX, ROCK-RAP-ROLL, SNOOPY and DAEDELUS ENCOUNTER...ALL CD ROMs!!!

MODELS WITH TV FACILITY INCLUDED ARE ALSO SUPPLIED WITH... AVID VIDEOSHOP & APPLE VIDEO PLAYER TOO!!!

RAM	HD		MONITOR	CD	TV	K/B	Price
8Mb	800Mb	✘	✘	✔	✘	✘	£859 (£1009)
8Mb	800Mb	✘	15" MultiScan	✔	✘	✔	£1235 (£1451)
8Mb	800Mb	✔	15" MultiScan	✔	✘	✔	£1399 (£1644)
8Mb	800Mb	✘	15" MultiScan	✔	✔	✔	£CALL (£CALL)

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (Pack details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE.

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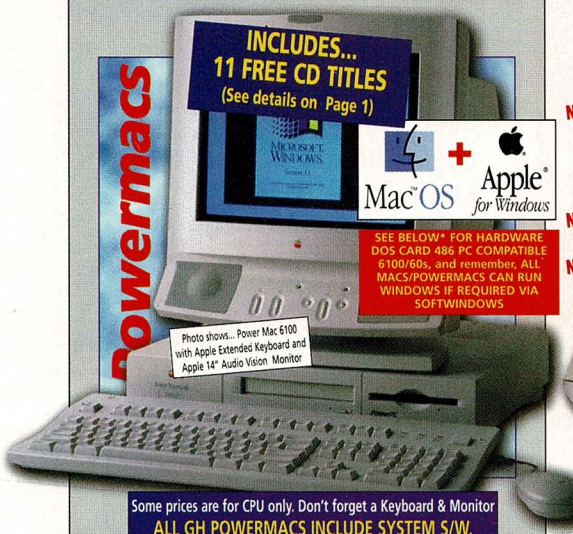
**BUSINESS FINANCE* : Weekly rates shown exclude VAT and are based on a fixed cost 3 year Apple Commercial Credit lease, payable quarterly. Available to all businesses, including those recently established, making a minimum total purchase of £750 - subject to status.*

**PERSONAL FINANCE* - *DEFERRED PAYMENT PLAN*: FOR PERSONAL INDIVIDUALS* VISITING OUR SHOWROOM FOR A LIMITED PERIOD AVAILABLE ON PURCHASES OVER £500... PAY A MINIMUM OF 10% DEPOSIT NOW, THEN NOTHING MORE FOR 5 MONTHS! During that period you can settle IN FULL (without any finance charges) or continue your agreement with normal interest arrangements (ie. Direct Debit APR 27.8%/2.07% per Month, Payment Book 32.4%/2.37% per Month). And... for the first 5 months you'll also receive FREE AGREEMENT LIFE COVER. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.*

NEW 7200/7500/8500 & 9500s - AT LOWER PRICES!

POWERMACS


Powermacs
INCLUDES... 11 FREE CD TITLES (See details on Page 1)
Mac OS + Apple for Windows
SEE BELOW* FOR HARDWARE DOS CARD 486 PC COMPATIBLE 6100/60s, and remember, ALL MACS/POWERMACS CAN RUN WINDOWS IF REQUIRED VIA SOFTWINDOWS
Photo shows... Power Mac 6100 with Apple Extended Keyboard and Apple 14" Audio Vision Monitor

Some prices are for CPU only. Don't forget a Keyboard & Monitor

ALL GH POWERMACS INCLUDE SYSTEM S/W, MOUSE, MANUALS, CONNECTION LEADS etc.

AFFORDABLE POWERMAC SYSTEMS FROM ONLY...

£949 (£1115.08 inc. VAT)

USERS PAYMENT PLAN FOR BUSINESS

OR JUST... **£9.95** PER WEEK *(When Spending Over £750+)*

GREAT GH DEALS ON ENTRY LEVEL POWERMAC 6100s

While Stocks Last

	RAM	HD	Display	CD	Keyboard	Price
6100/66	8Mb	350Mb	✘	✘	✘	£949 (£1115)
6100/66 + PC*	8Mb	500Mb	✘	✘	✘	£1529 (£1797)

* 6100/66 PC Systems inc. 486 DX2 66MHz card & MS DOS 6.2 (Windows may be purchased separately)
* REMEMBER YOU ALSO GET AN EXTRA 8Mb RAM ON THE DOS CARD TOO GIVING 16Mb IN TOTAL!

NEW... GH HIGH SPEC POWERMAC 7200/7500/8500s

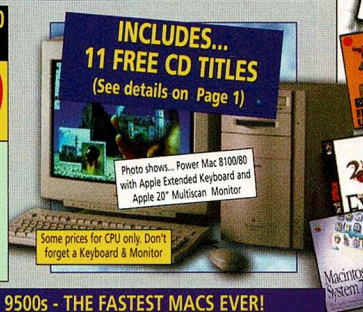
BIG GH SAVINGS!

	RAM	HD	Display	CD	Keyboard	Price
NEW 7200s						
7200/75	8Mb	500Mb	✘	✘	✘	£949 (£1115)
7200/75	8Mb	500Mb	15" MS	✘	✔	£1327 (£1559)
7200/90 CD	8Mb	500Mb	✘	✔	✘	£1359 (£1597)
7200/90 CD	16Mb	1Gb	✘	✔	✘	£1779 (£2090)
NEW 7500s						
7500/100 CD	8Mb	500Mb	✘	✔	✘	£1799 (£2114)
7500/100 CD	16Mb	1Gb	✘	✔	✘	£2289 (£2690)
NEW 8500s						
8500/120 CD	16Mb	2Gb	✘	✔	✘	£3499 (£4111)

POWERMAC 9500 FROM JUST... £3599 (£4228.83 inc. VAT)

USERS PAYMENT PLAN FOR BUSINESS

OR JUST... **£9.43** PER WEEK *(When Spending Over £750+)*


INCLUDES... 11 FREE CD TITLES (See details on Page 1)
Photo shows... Power Mac 8100/80 with Apple Extended Keyboard and Apple 20" Multiscan Monitor
Some prices for CPU only. Don't forget a Keyboard & Monitor

NEW GH 9500s - THE FASTEST MACS EVER!

The all new Apple Powermac 9500 Range sets new standards for speed, performance, expandability and processor upgradability. If you are a designer, engineer, multimedia expert or anyone with a need for POWER, these are the Macs to buy! Each model incorporates 6 Industry Standard PCI expansion slots for low cost plug in card possibilities. The 9500/120 CDGR & the 9500/132 CDGR come with an Accelerated 24-Bit PCI Graphics Card already fitted, whilst the 9500/132 CD is supplied without this card - allowing you to add a Graphics/Other Cards of YOUR choice.

BIG GH SAVINGS!

	RAM	HD	Display	Apple Graphics Card*	CD	K/B	Price
NEW 9500s							
9500/120 CDGR	16Mb	1Gb.	✘	✔	✔	✘	£3599 (£4229)
9500/132 CD	16Mb	2Gb.	✘	✘	✔	✘	£4399 (£5169)
9500/132 CDGR	16Mb	2Gb.	✘	✔	✔	✘	£4599 (£5404)

* 2Mb VRAM Included - Further 2Mb VRAM for extra performance also available - Please ask us!

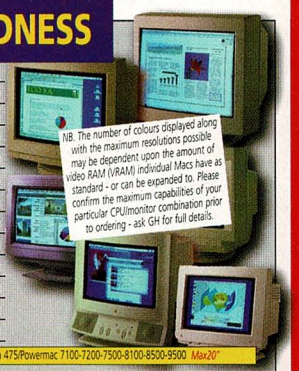
Confirm you're getting the **BEST DEAL...** *call those friendly people at the UK's FAVOURITE RESELLER!*

"Got a technical problem?" "Need an Upgrade?" "Want a new peripheral fitting?" **LOOK NO FURTHER...** *Our Apple Approved Engineers will do the job.*

GH MONITOR MADNESS

Monitor Model	Built in Speakers	Price
Apple 14" Performa Plus (.28)	✘	£219 (£257)
Apple 14" Trinitron (.26)	✘	£259 (£304)
Apple 15" MultiScan (.28)	✔	£299 (£352)
Sony 15" SFI Trinitron MultiScan (.26)	✘	£369 (£434)
NEW Apple 17" 1705 MultiSync (.28)	✘	£499 (£586)
Formac 17" Trinitron MultiScan (.26)	✘	£549 (£645)
Apple 17" Trinitron MultiScan (.26)	✔	£659 (£775)
Sony 17" SFI Trinitron MultiScan (.26)	✘	£659 (£775)
Radius 17" PrecisionView Trinitron (.26)	✘	£669 (£786)
NEW Apple 17" Trinitron AudioVision 1710 (.26)	✔	£699 (£821)
Radius 20" IntelliColor (.26)	✘	£1359 (£1597)
NEW Apple 20" MultiScan (.26)	✘	£1299 (£1526)

LC III/Performa 450-460-630/*Quadra 630/Powermac 5200*-5300*-6100-6200* Max 17" Performa 475/Powermac 7100-7200-7500-8100-8500-9500 Max20"


NB. The number of colours displayed along with the maximum resolutions possible may be dependent upon the amount of video RAM (VRAM) individual Macs have as standard - or can be expanded to. Please confirm the maximum capabilities of your particular CPU/monitor combination prior to ordering - ask GH for full details.

MACINTOSH KEYBOARDS

Apple Design Keyboard	£79 (£93)
Apple Extended Keyboard	£139 (£164)
Apple Adjustable Keyboard	£165 (£194)
Apple Third Party Extended Keyboard	£49 (£58)

TV, VIDEO & GRAPHICS UPGRADES

NEW... 24-BIT Accelerated Graphics Card for PDS Macs *(For LCIII/475/630/6200 allows up to 4096x1536 resolutions - 21" Monitors at 8 Bit or 17" Monitors at 24 Bit)*	£361 (£424)
630/5200/6200 Video-In Card	£92 (£108)
630/5200/6200 Video-In and TV Tuner Card	£219 (£257)
630/5200/6200 Video-Out Card	£219 (£257)
630/5200/6200 MPEG FMV Video CD Playback Card with...	£189 (£222)
FREE: Ocean Life Hawaii, Return to Zork, Warren Miller & Wild Africa software *(ONLY fits systems without DOS card... Requires video in or video in/TV tuner)*	
Raster Ops Paintboard Prism 24-Bit Accel. Nubus Graphics Card	£539 (£634)
5200 External Monitor Connection Port Kit	£29 (£34)

MACINTOSH CHIP UPGRADES

RAM - 4Mb SIMMS	£105 (£123)
RAM - 8Mb SIMMS	£199 (£234)
RAM -16Mb SIMMS	£359 (£422)
RAM - 4Mb to 32Mb DIMMS	£CALL GH!!!
Powermac 256K Cache	£159 (£187)
Powermac 512K Cache	£251 (£295)
630 - FULL 68040 with FPU Chip Upgrade	£309 (£363)

MACINTOSH EXPANSIONS

Personal Communication Solution for 630/5200/6200 Macs, includes DATA, FAX, & ANSAPHONE software with an internal 14400 Modem **£199** (£234)

Powermac 6100... PC 486 DX2 66MHz Hardware PC Card with DOS 6.2 software Collection, fitting and redelivery for upgrades please add... **£30** (£36) **£399** (£469)

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Giles Harwood - Managing Director

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ORDER HOTLINE... **01-773-836781**

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SERVICE, SUPPORT and WARRANTIES: GH is one of Apple UK's selected Authorised Service Providers (not all Resellers have this accreditation). Our standard One Year GH Gold Warranty gives you a comprehensive backup. GH also offer a range of options for business and professional users which may be essential for systems in high dependency/constant use.

BY PHONE: We'll help with any queries and, when you're ready to order we accept AMEX, Visa, Mastercard, Access, Switch, Connect, Delta and Lombard Creditcharge (most 'store cards' are Lombard Creditcharge and we happily accept them).

BY POST or FAX: When ordering include your name, address and preferably a contact phone number with your order requirements. If charging a credit/debit card, include its number and expiry date (and issue number with Switch cards). Make Cheques (please allow 7 days clearance prior to despatch), Bankers/Building Society Drafts or Postal Orders payable to Gordon Harwood Computers.

PRICES: Please remember to confirm prices in case you are looking at an 'old' magazine. Prices can change (up or down) before the magazine's cover month has passed. Please confirm before sending orders by post.
(For the convenience of personal and business customers, we list ***most*** *prices both with and without VAT (Inc. VAT prices are to the nearest full £ and shown in brackets).*

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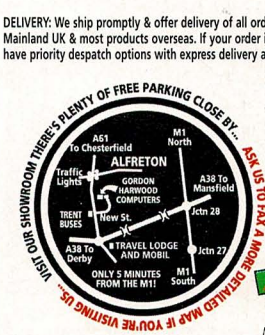
DELIVERY: We ship promptly & offer delivery of all orders throughout Mainland UK & most products overseas. If your order is urgent we have priority despatch options with express delivery available.

MACINTOSH SOFTWARE

GRAPHICS	Quark Xpress 3.3 - Native PowerMac	£540	(£763)
	- 68030/40 (Non P/Mac)	£537	(£690)
	Adobe Illustrator 5.5	£239	(£340)
	Adobe Photoshop 3.0	£400	(£470)
	Adobe Collection	£499	(£586)
	KAI's Power Tools	£99	(£116)
	NEW KPT Vector Effects	£99	(£116)
	NEW KPT Power Photos	£99	(£116)
	KPT Convolver	£99	(£116)
	KPT Bryce	£99	(£116)
	Aldus Freehand 5.0	£320	(£376)
BUSINESS	Claris Works 4.0	£98	(£115)
	Claris Filemaker Pro	£98	(£115)
	Microsoft Office	£362	(£425)
	Microsoft Word	£255	(£300)
	Microsoft Excel	£259	(£304)
	WriteNow	£30	(£35)
	M.Y.O.B (accounts)	£150	(£176)
	SignPost	£79	(£93)
UTILITY	SAM	£55	(£65)
	SAM 4.0 (Inc. 1Yrs Updates)	£109	(£128)
	RAM Doubler	£60	(£70)
	Speed Doubler	£60	(£70)
	Norton Utilities	£81	(£95)
	Suitcase	£59	(£69)
	After Dark 3.5	£30	(£35)
EDUCATIONAL	Encarta '95	£64	(£75)
	Cinemania '95	£42	(£49)
	Kid Pix 2	£30	(£35)
	Living Books - Tortoise & the Hare	£30	(£35)
	DK - The Way Things Work	£43	(£50)
	DK - Incredible Dictionary	£32	(£38)
	DK - Encyclopaedia Science	£43	(£50)
	DK - Ultimate Human Body	£43	(£50)
	Creative Writer	£30	(£35)
	Fine Artist '95	£29	(£34)
	Wine Guide '95	£29	(£34)
GAMES	MYST CD	£34	(£40)
	Marathon	£39	(£46)
	SIM City 2000	£30	(£35)
	Dark Forces	£34	(£40)
	A-10 Attack	£39	(£46)

MACALLY GAMES CONTROLLERS
Joystick £43 (£50)
GamePad £34 (£40)



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KEEN PRICES, 11 FREE CDs, JUST 10%* DEPOSIT

*see below

THEN... PAY NOTHING FOR THE NEXT 5 MONTHS! PERSONAL CALLERS TO OUR STORE CAN TAKE ADVANTAGE OF OUR DEFERRED PAYMENT PLAN* WHILST BUSINESSES ARE OFFERED A GH FINANCE SCHEME TOO+

PERSONAL CALLERS* PAYMENT PLAN FOR 0%

EPSON GT5000

FROM... £399 (£468.83 inc. VAT)

OR JUST... £3.15 PER WEEK (When Spending Over £750+)

Model	Resolution (dpi) Optical	Max	Software	Price
New Product	**NEW EPSON GT 5000** LOW COST 300 x 1200dpi SCANNER with Photoshop LE & Xerox Text Bridge OCR Software at a super low price of only...			£399 (£469)
GT 8500	400	1600	Photoshop LE & Omnipage Direct	£549 (£645)
GT 8500	400	1600	Full Photoshop	£749 (£880)
GT 9000	600	2400	Photoshop LE & Omnipage Direct	£649 (£763)
GT 9000	600	2400	Full Photoshop	£849 (£998)
Epson Transparency Adaptor for... 6000/6500/8000/8500 or 9000 Models				£418 (£491)

(Please quote which scanner the adaptor is for when ordering)

NEC 300 CD

ONLY... £129 (£151.58 inc. VAT)

OR JUST... £1.02 PER WEEK (When Spending Over £750+)

NEC 300 Double Speed CD Caddyless CD Drive, Double Speed with Cable and Terminator, Accelerated Autocache software for even FASTER performance.

GORDON HARWOOD Steal Buy VALUE

WITH FREE SOFTWARE FOR FASTER CD ACCESS TIMES!

STRICTLY LIMITED QUANTITIES AT THIS SUPER LOW PRICE!

EPSON STYLUS COLOUR II

£329 (£386.56 inc. VAT)

OR JUST... £2.60 PER WEEK (When Spending Over £750+)

FREE FONTS with ALL Epson Printers See Page 4 for details

INCLUDES A FREE CABLE

Quality inkjet printing BUT at a BUDGET PRICE!!! A4 size Inkjet Printer with a max maximum resolution of 720dpi! Epson **3 YEAR WARRANTY**! The Colour II can use Gloss paper, Coated paper and Transparencies - Budget Price... Great Quality Print!

WHILE STOCKS LAST

GREAT QUALITY INKJET PRINTING ON A3 PAPER

A3 STYLUS PRO XL £1399 (£1643.83 inc. VAT)

OR JUST... £11.07 PER WEEK (When Spending Over £750+)

INCLUDES A FREE CABLE

PostScript Software option available soon for Stylus XL and A4 PRO

GH have secured stocks of the exciting NEW EPSON STYLUS PRO XL inkjet printer which boasts an incredible 720 x 720dpi maximum resolution. Not only that, but output can be A3 PLUS BLEED! This is the ultimate inkjet Proofing Device - Ask GH for more details. •A3 + BLEED •720 X 720dpi QUALITY HIGH RESOLUTION •EASYCHANGE TRICOLOUR/BLACK CARTRIDGES •BUILT IN SHEET FEEDER •EPSON 1 YEAR WARRANTY •ETHERNET AVAILABLE

QUALITY INKJET PRINTING ON A4 PAPER

A4 STYLUS PRO XL £639 (£750.83 inc. VAT)

OR JUST... £5.06 PER WEEK (When Spending Over £750+)

A4 version of the above with a similar specification...

•EASYCHANGE TRICOLOUR/BLACK CARTRIDGES •BUILT IN SHEET FEEDER •A4 PAPER SIZE •720 X 720dpi QUALITY HIGH RESOLUTION •PIEZO FINE DOT •EPSON MICROWEAVE TECHNOLOGY •ETHERNET AVAILABLE

NEW Mk II NEWTON JUST... NEW

£429 (£504.08 inc. VAT)

OR JUST... £3.38 PER WEEK (When Spending Over £750+)

NEW MODEL... NEWTON 120 Mk II - 8Mb	£429 (£504)
1Mb Storage Card	£60 (£70)
2Mb Storage Card	£111 (£130)
4Mb Storage Card	£199 (£234)
Connection Kit - Mac	£51 (£60)
Connection Kit - Windows	£51 (£60)
Leather Carrycase - 100/Original Message Pad	£34 (£40)
Leather Carrycase - 110/120	£42 (£50)
Battery Pack Wall Recharger including Battery - 100	£34 (£40)
Mains Charge Station inc. Batt. -110/120	£47 (£56)
Nicad Battery - For Newton 110	£14 (£17)
Nicad Battery - For Newton 100/Original Message Pad	£13 (£16)
Tapworks	£51 (£60)
Graffiti	£39 (£46)

LOTS MORE NEWTON SOFTWARE AND PERIPHERALS etc. AVAILABLE AT GREAT PRICES PLEASE PHONE GH!

TI LASER TONERS AVAILABLE NOW!

FREE FONTS with TI Printers - See Page 4 for details ONLY FROM GH!

WHILE STOCKS LAST

TEXAS 600dpi LASER

FROM... £599 (£703.83 inc. VAT)

OR JUST... £4.74 PER WEEK (When Spending Over £750+)

TEXAS INSTRUMENTS MICROLASER 600 & PRO 600 features...

• A4 Paper Size • Fast 5ppm (600)/8ppm (600 Pro) • PCL 5 Emulation • RISC Processor • 250 Sheet Paper Tray • Autosensing for MAC/IBM Compatibles • True 600 x 600 dpi Res. • Adobe Postscript Level 2 • Optional Sheet Feeder for various Paper, Labels, Envelopes, Transparencies etc.) • 2 or 4Mb RAM (max 10Mb) - 600 • 3Mb RAM (max 22Mb) - 600 Pro

**Both the 600 (2Mb) & 600 Pro incorporate a RAM BOOSTER* allowing many 4Mb files to be output even with 2Mb RAM. Please note that 600dpi print files are FOUR TIMES the size of equivalent 300dpi print files FOR ALL PRINTERS - GH therefore still recommend that whilst 2Mb is adequate for WP etc., 4Mb or more will extend the capabilities for large graphic output files etc. at 600dpi.*

TI Microlaser 600 Model...	Price
MICROLASER 600 with 2Mb RAM + RAM BOOSTER*	£599 (£704)
MICROLASER 600 with 4Mb RAM	£725 (£852)
2Mb RAM Upgrade	£145 (£171)
MICROLASER 600 PRO Including 3Mb RAM + RAM BOOSTER*	£850 (£999)
ETHERNET INTERFACE for TI 600 & PRO *Please state model when ordering*	£CALL

THE FASTEST WAY TO GET PAPER INTO YOUR MAC!

PAPERPORT FOR JUST... £239 (£280.83 inc. VAT)

OR JUST... £1.89 PER WEEK (When Spending Over £750+)

ALLOWS ELECTRONIC STICKY NOTES, LINES, ARROWS AND TEXT TO BE ADDED TO YOUR DOCUMENTS. CAN AUTO MOVE SCANNED DOCUMENTS INTO YOUR FAVOURITE PROGRAMS TOO!

New Product

NOW AT A NEW LOWER GH PRICE!!!

PAPERPORT OCR MANAGEMENT & FILING SYSTEM...

Ever had a problem finding your desk under a mountain of paperwork? Then this is the answer...

- FLEXIBLE - Scans everything from a business card to newspaper cuttings - including photographs
- FITS - between keyboard and monitor • EASY - Insert document and it appears on screen for editing
- FAST - Scan/Display of a page in approx. 6 secs! • INCLUDES - WordScan OCR software, 200 to 400dpi, and works with FAX Modems too!

Leaf a scitex company Scitex

ASK GH ABOUT A FREE DEMONSTRATION ANYWHERE IN THE UK

New Product

Captures an image at 2700 x 3400 (26Mb) resolution in just 3 minutes (33MHz Quadra 950. Great quality output even at A4 size.

INCLUDES 35mm SLIDE ADAPTOR!

- Ideal for Graphic Artists, Designers, In-House publishers, Service Bureaux, Newspaper/Magazine art departments etc. that need to cut out the waiting time for their Photographic requirements... Now YOU control the imaging schedule - in a quick & easy way.
- Cut scan times. Get transparencies/photos directly into your Mac.

DIGITAL ELECTRONIC PHOTO SCANNER/CAMERA

2700x3400 LUMINA! £2999 (£3523.83 inc. VAT)

OR JUST... £23.24 PER WEEK (When Spending Over £750+)

The NEW... LEAF LUMINA from SCITEX is a revolutionary 2700 X 3400 resolution full colour imaging product designed to bring production quality photographic images onto the desktop. You can use the Lumina with standard photographic accessories such as a tripod, copy stand, studio lights, lens filters/gels etc. to capture not just flat artwork, but also 3 DIMENSIONAL OBJECTS/SCENES too! Lumina is supplied with its own 50mm lens and also accepts 'off the shelf' standard Nikon fitting 35mm SLR Camera lenses for real versatility. Operation is really simple, Arrange your 'still life' items and light them etc. and Lumina will input via your Macs SCSI interface. The picture will preview/update on your Mac monitor as the image progresses! IT'S AS EASY AS THAT!

- Includes Lumina Software consisting of 2 Photoshop Plug-Ins
- Full focusing facilities for total creative control • Full MAC screen previews at 72dpi on a 19" monitor in around 20 secs.
- Use to Scan Artwork & Transparencies (35mm to 6 x 7cm) too.

THE COST EFFECTIVE WAY TO GET QUALITY IMAGES INTO MACS!

UMAX

Best Buy MacUser · PC WORLD · PC MAGAZINE EDITORS' CHOICE · MACWORLD MW EDITORS' CHOICE · HOT PRODUCT 1994 · COMPUTER ARTIST'S TOP PRODUCT 1994 · MacUser RATED NOVEMBER 1994 · IMAGING MAGAZINE EDITORS' CHOICE · Personal Computer World HIGHLY COMMENDED · Publish impact AWARDS '94

Model	Resolution (dpi) Optical	Max	Transp. Adaptor	Photoshop	Price
VISTA T630	600 x 300	4800	✘	✘	£275 (£323)
VISTA T630	600 x 300	4800	✘	LE+	£299 (£351)
VISTA T630	600 x 300	4800	✔	FULL+	£799 (£939)
VISTA S8	800 x 400	6400	✘	LE+	£539 (£633)
VISTA S8	800 x 400	6400	✘	FULL+	£649 (£763)
VISTA S8	800 x 400	6400	✔	FULL+	£959 (£1127)
UC 1260	1200 x 600	9600	✘	LE+	£649 (£763)
UC 1260	1200 x 600	9600	✘	FULL+	£789 (£927)
UC 1260	1200 x 600	9600	✔	FULL+	£1099 (£1291)
GEMINI	800 x 800	9600	✘	LE+	£779 (£915)
GEMINI	800 x 800	9600	✘	FULL+	£899 (£1056)
GEMINI	800 x 800	9600	✔	FULL+	£1199 (£1409)
POWERLOOK II	1200x600	9600	✘	FULL+	£1999 (£2349)
POWERLOOK II	1200x600	9600	✔	FULL+	£2299 (£2701)
MIRAGE A3	1600 x 800	9600	✔	FULL+	£5999 (£7049)

+ *Include MagicSCAN & MagicMATCH Software*
+ *Include VistaSCAN Software*

GH OMNIPAGE SOFTWARE OPTION... Buy Omnipage with ANY Umax Scanner from GH and pay JUST... £45 (£53)

VISTA S8...

£539 (£633.33 inc. VAT)

OR JUST... £4.26 PER WEEK (When Spending Over £750+)

GENUINE UK UNITS... ALL GENUINE UK UMAX PRODUCTS COME WITH A FULL 1 YEARS ON-SITE WARRANTY. GREY IMPORTS **DO NOT** CARRY THIS OFFICIAL WARRANTY. ALL GH UMAX PRODUCTS **ARE** GENUINE UK UNITS - MAKE SURE OTHERS ARE!

Transparency Adaptors (please quote Umax scanner model when ordering)	£422 (£499)
50 Sheet Document Feeder for Vistas	£379 (£445)

WE CAN DEMONSTRATE BOTH POWERLOOK, MIRAGE AND LUMINAS ANYWHERE IN THE UK - See just how good the results are from these great products!!! - Call GH for your FREE DEMONSTRATION -

All listed prices are what YOU PAY, and there are NO HIDDEN EXTRAS. Prices are correct at time of going to press (Pack details may vary from time to time). Offers and Services are subject to availability and to being the latest advertised products, packs and prices. Please note goods are not supplied on a trial basis. E&OE.

WHEN CONSIDERING FINANCE, PLEASE ENSURE THAT YOU REFER TO THE APPROPRIATE SECTION BELOW AS ARRANGEMENTS DIFFER FOR PERSONAL INDIVIDUALS AND BUSINESSES (Including Sole Traders, Partnerships etc.)

**BUSINESS FINANCE* : Weekly rates shown exclude VAT and are based on a fixed cost 3 year Apple Commercial Credit lease, payable quarterly. Available to all businesses, including those recently established, making a minimum total purchase of £750 - subject to status.*

**PERSONAL FINANCE* - *DEFERRED PAYMENT PLAN*: FOR PERSONAL INDIVIDUALS* VISITING OUR SHOWROOM FOR A LIMITED PERIOD AVAILABLE ON PURCHASES OVER £500... PAY A MINIMUM OF 10% DEPOSIT NOW, THEN NOTHING MORE FOR 5 MONTHS! During that period you can settle IN FULL (without any finance charges) or continue your agreement with normal interest arrangements (ie. Direct Debit APR 27.8%/2.07% per Month, Payment Book 32.4%/2.37% per Month). And... for the first 5 months you'll also receive FREE AGREEMENT LIFE COVER. Written details/quotations available on request. *Subject to status. Please contact us prior to your visit for details of easy application requirements.*

FREE FONTS WITH ALL PRINTERS ONLY FROM GH!!!

NEW APPLE 4/600PS

600 dpi LASER

£599 (£703.83 Inc. VAT)

New Product

OR JUST... **£4.74** PER WEEK (When Spending Over £750+) — BUSINESS USERS - PAYMENT PLAN FOR

FREE FONTS with Apple 4/600PS Printer See below for details ONLY FROM GH!

WHILE STOCKS LAST

Mono A4, 600dpi, 4ppm, RISC Processor, Adobe PostScript Level 2, 2Mb RAM (exp. to 6Mb), Adobe Memory Booster allowing printing of complex files with less RAM, LocalTalk, can link to TokenTalk and Ethernet via LaserWriter Bridge 2.0 Software - APPLE's own 600 dpi!

APPLE MONO LASERWRITER PRINTERS...

Personal LaserWriter 300 - 300dpi, 4ppm Mono	**£429**	(£505)
LaserWriter 320 - 300dpi, 5ppm Mono, P/Script Level 2	**£649**	(£763)
LaserWriter Select 360 - 600dpi, 10ppm Mono, P/S Level 2	**£1049**	(£1233)
LaserWriter 16/600 - 600dpi, 16ppm Mono, Postscript Level 2	**£1599**	(£1879)

APPLE 12/600PS COLOUR LASERWRITER

COLOUR LaserWriter - Full Colour and Mono A4, 600dpi, 12ppm Mono/3ppm Colour, RISC Processor, Adobe PostScript Level 2, 12Mb RAM (exp. to 40Mb), LocalTalk/Ethernet/Parallel etc. **£4999** (£5874) Includes FREE LOCAL installation

APPLE StyleWriter 1200 Mono
360dpi x 720dpi Inkjet 3PPM Printer for budget laser-like quality output. Quickdraw GX compatible.
£199 (£234)

APPLE StyleWriter 2400B Colour
Excellent 360dpi colour output or 720 x 360 dpi mono. Ideal for proofs - the LATEST Colour S/Writer
£349 (£410)

APPLE StyleWriter 2200 Colour
Colour 360dpi or Mono 720 x 360 dpi. Compact and Portable - Ideal if you're on the move.
NEW LOW PRICE!!! **£279** (£328)

StyleWriter 2200 Rechargeable Battery
£58 (£68)

PRICE CRASH!!!

HP DESKWRITER Inkjet Printers...

NEW...HP340 Mono 600 x 600dp **£219** (£257)
Also has option to add colour kit for 600 x 300dpi colour prints

HP600 - Mono 600 x 600dpi **£219** (£257)

HP660 - Colour 600 x 300dpi With Resolution Enhancement! **£284** (£334)

EXCLUSIVE to GH...
100 FREE FONTS WITH EVERY PRINTER PURCHASED!!!

GH WILL GIVE YOU FREE - THE 100 "MORE KEY FONTS' SET COMPATIBLE WITH YOUR NEW PRINTER (either TrueType or PostScript Type 1), AND THEN, IF YOU WISH, YOU CAN ALSO PURCHASE THE 100 'ORIGINAL KEY FONTS' SET FOR ONLY £30!

REMEMBER THOUGH, THIS OFFER IS AVAILABLE ONLY WHEN YOU BUY YOUR PRINTER FROM GH!

WHILE STOCKS LAST — WHILE STOCKS LAST

PRINTER CONSUMABLES

StyleWriter...			**All HP DeskWriters (except 660)...**		
I/Il/Portable - Black Cartridge	**£16**	(£19)	Black Double Cap. Cart.	**£21**	(£24)
2400 - Black Cartridge	**£22**	(£26)	Tri Colour Cartridge	**£24**	(£28)
Colour Cartridge	**£24**	(£28)	**HP 340/600/660 DeskWriters...**		
Black Ink Tank	**£6**	(£7)	Black Double Cap. Cart.	**£24**	(£28)
Colour StyleWriter Pro...			Tri Colour Cartridge	**£25.50**	(£30)
Black Hi-Capacity Cart.	**£8.50**	(£10)	**Toners...**		
C, M, Y or K Cartridge	**£7.50**	(£9)	For Apple 300/320	**£51**	(£60)
CMYK - 4 Colour Set Cart.	**£30.50**	(£36)	For Apple 360	**£81**	(£95)
Epson Stylus...			For Apple 16/600	**£90**	(£106)
Black Cartridge	**£15**	(£18)	**Apple Inkjet Printer Paper...**		
Colour Cartridge	**£26**	(£30)	A4 Coated - 200 Sheets	**£24**	(£28)
360dpi Paper, 200 Sheet	**£19**	(£22)	A4 Backprint - 20 Sheets	**£25.50**	(£30)
720dpi Paper, 200 Sheet	**£22**	(£26)	A4 Glossy - 50 Sheets	**£28**	(£33)

GH ACCESSORIES ESPECIALLY FOR YOUR APPLE

10 - TDK 3.5" HD Blank Disks	**£7.66**	(£9)
50 - TDK 3.5" HD Blank Disks	**£34**	(£40)
3.5" Disk Head Cleaning Kit	**£3.40**	(£4)
GH Quality Mouse Mat	**£4.26**	(£5)
SPECIAL - GH ESSENTIALS PACK: *10 3.5" HD Disks, Mouse Mechanic, Disk Head Cleaner and Mouse Mat*	**£17**	(£20)
SPECIAL - GH ESSENTIALS PLUS PACK: *As above PLUS Apple 1 Year On-Site Maintenance Warranty*	**£30**	(£35)
Essential Mouse Mechanic Maintenance Tool	**£5**	(£6)
Genuine Apple Desktop II Ergonomic Mouse	**£38**	(£45)
Syquest 44Mb Cartridge	**£34**	(£40)
Syquest 88Mb Cartridge	**£43**	(£51)
Syquest 200Mb Cartridge	**£68**	(£80)
APPLE 1 YEAR ON-SITE MAINTENANCE	**£20**	(£24)

200 SYQUEST 200Mb Standard 5.25" Syquest Drive Just... **£349** (£410)

PINNACLE RCD 1000 CD ROM WRITER Only... **£1299** (£1526)

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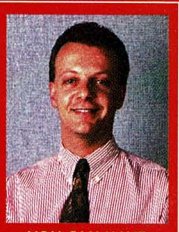

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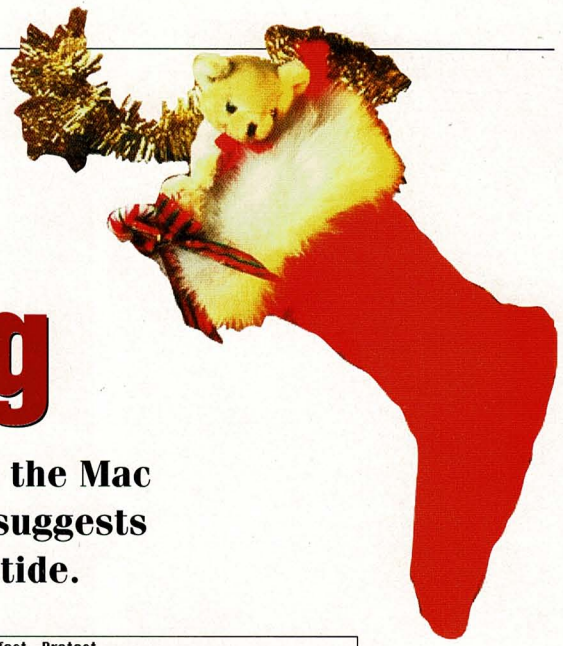
MACFORMAT

Xmas stocking

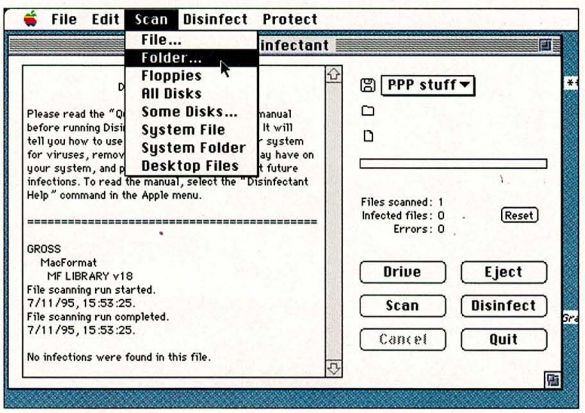


Still looking for that perfect Christmas gift for the Mac owner who has everything? Santa Summersby suggests a few alternatives to socks to brighten up Yuletide.

DECK THE HALLS

To give your Desktop the appropriate festive look, install the *Xmas Lights* Extension – it's on the Cover Disk this issue! (Batteries not required. Holly, mistletoe and mince pies not supplied.)

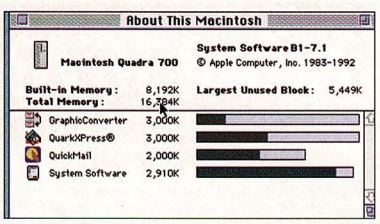
If you're wondering what to get your loved ones for Christmas, here's MACFORMAT's list of desirable Christmas presents to get you through those 12 hellish days. It's an eclectic selection of the cleverest and most indispensable Mac products – genuinely handy items that are worth getting, ideal extras for the Mac that has everything, and imaginative stocking-fillers...



1. Disinfectant

The ultimate virus-checker, it's updated as soon as any new viruses are discovered. We've rated it as number **one** because it's the only non-commercial utility of its kind, it's the finest freeware Extension we know, and it insists on loading first at startup...

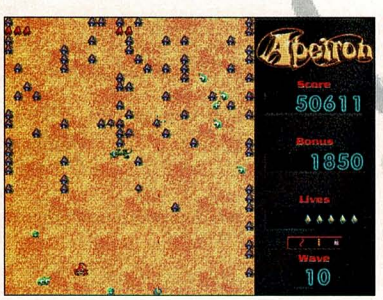
■ *Disinfectant* is on the Cover CD every issue, and updates are put on the HD Cover Disk.



2. *RAM Doubler*

Doubles your RAM, giving you twice as much memory (number **two**, geddit?) for only £70.44. How it works is a secret known only to two coders at Connectix – but Christmas is a time for miracles, right?

■ *RAM Doubler 1.4.2* costs £70.44. For details contact Computers Unlimited, 0181 200 8282.



3. Ambrosia games

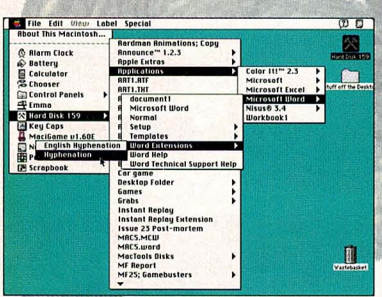
Ambrosia Software bring classic games to the Mac as shareware. If you've dreamt about *Centipede*, you'll find it as *Aperion*. If you've longed for *Asteroids*, you'll embrace *Maelstrom*. If you pined for *Galaxians*, cheer up and try *Swoop*.

■ *Aperion*, *Maelstrom* and *Swoop* – **three** classic conversions by Ambrosia – are on the MACFORMAT Cover CD-ROM.

4. Port Juggler

If you've been wondering what you can get for the Mac that has everything, how about somewhere to plug it all in? Macs only have two serial ports, but Port Juggler enables you to switch between as many as **four** different devices connected to the same serial port, or even share one device between up to four Macs.

■ Port Juggler 3 is $99 plus $35 P&P (a total of about £80). Contact Momentum Inc in the US on 00 1 808 263 0088 or fax them on 00 1 808 263 0099.



5. *BeHierarchic*

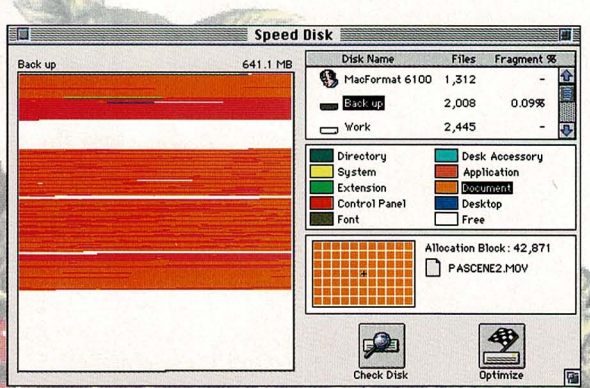
The Mac's structure of folders within folders is great until you want to find something buried four folders deep. This shareware Extension gives you a hierarchy of sub-menus in your Apple menu, up to **five** levels of folders within folders – so, for instance, you can access Control Panels instantly without opening the Control Panels folder first. Commercial alternatives, like *Now FolderMenus* (part of *Now Utilities 5*, £104.58 from Frontline on 01256 463344), can give you sub-menus from any folders, not just the Apple menu, and you can drag-and-drop items. *PopupFolder 2* does the same but up to 16 sub-levels (£45.83 from Softline, 0181 401 1234).

■ *BeHierarchic* is on this issue's Cover CD-ROM and is part of System 7.5.

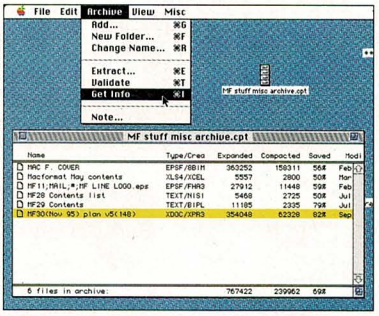
6. A disk utilities package

The leading choice is *Norton Utilities for Macintosh*. It's a bundle of **six** separate utilities for almost all the data management tasks you'll need, including repairing damaged disks or corrupted files, backing up data, and recovering files you've deleted.

■ *Norton Utilities* is £175 from Symantec on 01628 776343.



7. Compact Pro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A shareware compression utility that can reduce the size of files by **70%** or more. There's also *DiskDoubler*, the commercial alternative, which boasts a range of exciting options such as automatic compression whenever you save out a document.

■ *Compact Pro* is on the Cover CD. *DiskDoubler Pro* is £90 from Symantec on 01628 776343.

8. MacEnjoy

Don't worry about the cost of a Mac joystick. If you've got a digital Atari or Commodore joystick, this gadget enables you to plug it into your Mac's ADB port (where your mouse and keyboard plug in). It also comes with software that stores your preferred settings for each of several hundred games and loads the correct set automatically when you launch a game. Now you can easily fly in any of the **eight** compass directions with your favourite joystick!

■ MacEnjoy costs DM79 (about £35) plus postage from Fesh! in Berlin, 00 49 30 772 3816 or fax 00 49 30 773 8136.

9. PowerPrint

Macs talk to Mac-compatible printers via a serial connection, but PC-compatibles use a parallel connector. If for some reason you only have access to a PC printer, then you need PowerPrint. It's a serial-to-parallel connector with software drivers that enables you to print to over 1,000 PC-type printers. **Nine** is *half* the number of drivers it boasts (but there is no '18th day of Christmas', okay?), and it offers support for just about all the printer features you might ever conceivably need.

■ PowerPrint is £135 from Academy Software on 0181 656 9560.

10. Connectix QuickCam

A tiny digital video camera that enables you to capture your own video footage straight to your hard disk without any extra kit. It simply plugs into a spare serial port. (Quick! Where's that Port Juggler?) It's great for DIY movie rough-cuts, video conferencing or just for fun. At present it works in black and white only, capturing 15 frames a second in a window of 320 x 240 pixels, but the colour version is promised soon. And its about five centimetres wide – so get two and you've got **ten** centimetres of video fun! (Sorry.)

■ The Connectix QuickCam costs £117.44. Contact Computers Unlimited, 0181 200 8282.

11. The Macintosh Bible

Ever wondered which was the first Mac model with an FPU? Or what those fonts named after cities have in common? If you want to learn all there is to know about your Mac (and every other Mac ever made), try *The Macintosh Bible* – over **eleven** *hundred* pages of facts, tips and information. Slightly more advanced is *Macworld Mac and PowerMac Secrets*, which excels in 'insider advice' and clever tricks. Both are doorstop-sized, and come complete with some handy shareware and other utilities on disk.

■ *The Macintosh Bible* (ISBN 1-56609-009-1, £29.95) and *Macworld Mac and PowerMac Secrets* (ISBN 1-56884-175-2, £38.99) are available from larger bookshops or specialist booksellers like Computer Generation, 0171 937 8777.

12. A subscription to MACFORMAT

Facts, tips, all the latest Mac-related news, authoritative reviews, practical how-to's and a CD crammed with demos, utilities, shareware and more, every four weeks. **Twelve** issues of Britain's best-selling Mac magazine could cost you as little as £37.50 for the floppy disk edition if you subscribe.

■ See the card insert in this issue for full details of our current subscription offers, use your World Wide Web software to visit our home page at **http://www.futurenet.co.uk/** or phone the Subscriber Hotline on 01225 822511.

TEN CHRISTMAS BAUBLES

For those who have everything else...

1 An FPU. A Floating Point Unit or maths co-processor speeds up computation-intensive calculations. Quadras and PowerMacs have one built in; LCs and non-PowerPC Performas don't as standard. You can add an FPU to many Macs – check the adverts in MACFORMAT for details. Or you can try *Software FPU* (on the Cover CD), which can fool many programs into thinking there's one installed.

2 A fax-modem. If you never send faxes, you think e-mail is pointless and you have no interest in the Internet or any other on-line services, then you don't need a fax-modem. The rest of us probably couldn't do without one. Shop around.

3 If you want to explore the World Wide Web, invest in *Netscape Navigator* – Web browser software. You can get it from Netscape (00 1 415 528 2555) for around $49, or it's included in packages such as the Apple Internet Connection Kit (contact Apple on 0800 127753).

4 System 7.5. Yes, it uses huge amounts of RAM but it's ultimately worth upgrading to. It gives you lots of nifty new features, including more PowerPC-native code so that even basic functions run faster on PowerMacs. Phone Apple on 0800 127753 for more information.

5 If your Mac doesn't already sport one, invest in a RAM cache for it (or upgrade your RAM cache for a bigger one). Believe it or not, by doing so you can speed up your Mac by as much as 20%. A RAM cache is a segment of memory that holds the most recently accessed data from RAM, which means that it can be loaded even faster if it's needed. See last issue's main feature to find out more, or try a specialist retailer like MacRapide (0181 381 4810).

6 The Kensington Thinking Mouse has four programmable buttons, each of which you can use to execute any preset command – triple-click, Select All, cut-and-paste, or almost any other key sequence you like. These can even be application-specific, giving you the relevant presets each time you load a new program. Contact The Mac Accessory Centre on 0191 295 0353 if you're interested.

7 The Iomega Zip drive uses a disk that's about the size of a floppy, but can store up to 100Mb and transfer data at roughly the same speed as a hard drive. That's much more storage than floppies, faster than SyQuests, and more convenient than hard disks, for only £176 plus as little as £12 per disk. Unfortunately they're hard to come by in the UK at the moment. You can order one, but it seems there's (ahem) a backlog. Contact Iomega on 0800 898563.

8 Text-to-speech. This Extension enables your Mac to 'read' documents out loud. You do need an application that supports the technology – but don't worry, *SimpleText* does and more are expected soon. Text-to-speech comes with System 7.5.2, or you can get it off the Internet at: **http://www.info.apple.com/cgi-bin/lister-pl?Apple.Support.Area/Apple.Software.Updates/Most_Popular_Files** or try asking your local Apple Authorised dealer.

9 Your Mac keeps perfect time, but if you haven't got System 7.5 it doesn't automatically display the time on-screen. Enter *SuperClock* – it's a clock, a calendar and a timer, and it's on this issue's Cover Disk!

10 You *don't* want the MerryXmas virus for Christmas. It's a *HyperCard* stack, so most virus checkers don't search for it. You can find a MerryXmas vaccine on the Cover CD though.

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QKXP	**Quark Xpress 3.3** (the professional's choice)	£599.00
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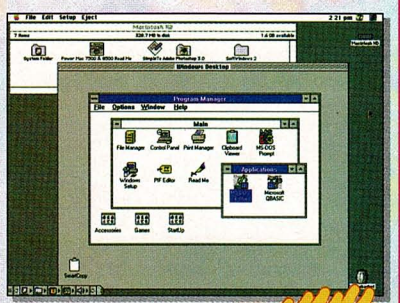

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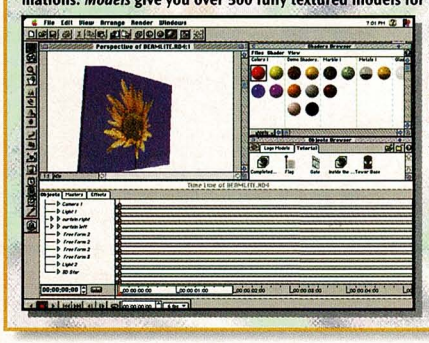

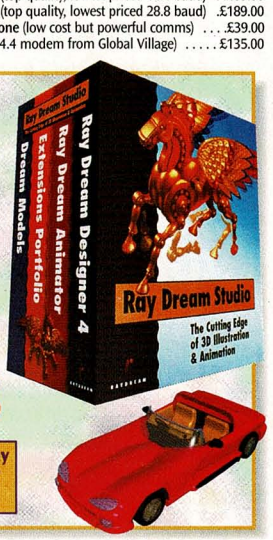

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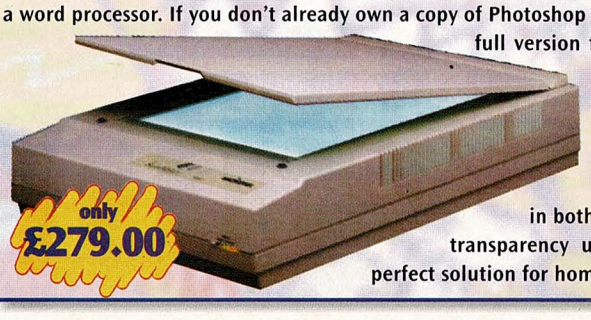

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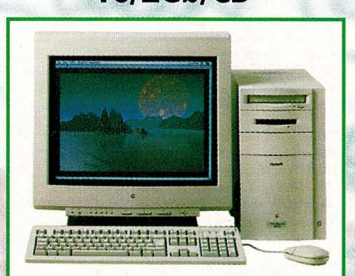

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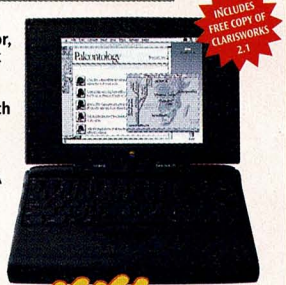

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Works of Art

Photoshop, Painter, Illustrator – the Mac is famed for its art software. But what can you achieve with it? Top graphics professionals reveal their techniques.

With its superb screen display quality and millions of colours capability, the Mac has always been the graphics computer of choice. Top-flight games and multimedia are commonly designed and developed on Macs, regardless of what platform they eventually appear on, and computer-based artists are increasingly turning to the Mac as a more affordable alternative to costly graphics workstations. The range of Mac art software available includes everything from vector graphics drawing programs to 'natural media' paint packages that can emulate airbrush, pastels or watercolours on your screen. Whatever you use your Mac for, you'll probably want to try your hand at graphics some day – even if it's only the Draw module in *ClarisWorks*. Or perhaps you're itching to try out *Color It!*, which we gave away with last month's MACFORMAT. To help you, we asked seven Mac graphics professionals to share their techniques and secrets, and put together a gallery of some of the best reader contributions to inspire you. Send us your masterpieces, and next time *your* work could be on display!

IT'S ON THE CD

Most of the artwork included on these pages can be found on the Cover CD this month. We've included work from Andy Betts, Geoff Fowler, Junior Tomlin, Nick Aspell and Alan Ekland.

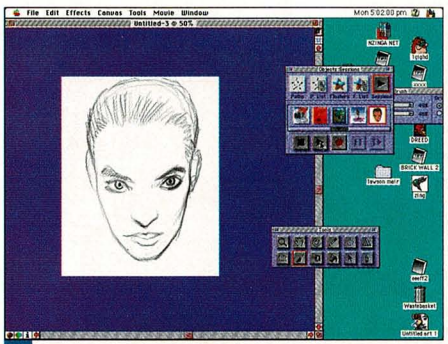
READERS' CORNER CONTRIBUTIONS

It's not only professionals that produce great artwork. Over the last few months we've received some highly impressive works sent in by our readers, which we've included in the Readers' Corner section of our Cover CD. To remind you of what our readers can achieve, and to provide inspiration, we're including a selection of the best across the bottoms of the next eight pages.

Mark Stoneham's work is a perfect example of how you can use your Mac to create images that look as if they've never been near a computer.

Airbrushing...

Junior Tomlin adapts his airbrush illustration skills to produce Mac artwork using Letraset's *Painter*.



1 The process was started by making a sketch on the Wacom Tablet. It was based on reference material which was of a woman in water.

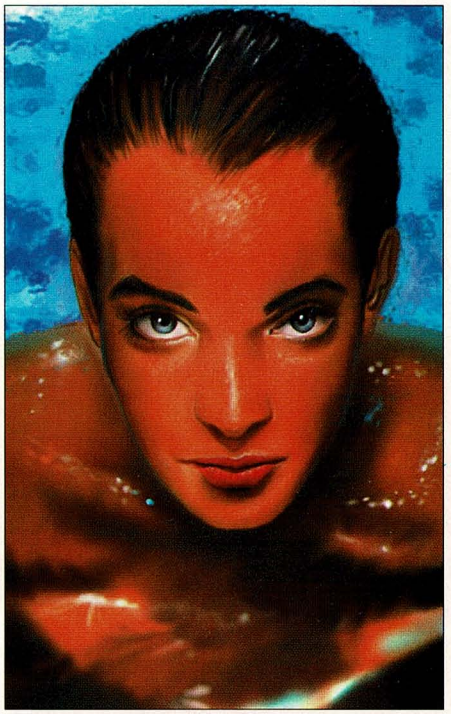
2 After doing the outline of the face using the airbrush, the eyes, nose, and the rest of the features were sketched in. The hair was then blocked in using the paintbrush, but at an increased size.

3 The next stage was to start adding colour to the image. The face was blocked in using a flesh colour, blending the colours into each other carefully.

4 Next, the fine drawing and modelling of the face took place. **Brightness/Contrast** in **Effects: Tonal Control** was used to alter the skin tones (to give her a better sun tan). Much of this stage is about redefining the detail and going over and over bits like the hairline, eyes and lips, to smooth things out. At times you find yourself with the image magnified up to 300 or 400% to add finer details.

5 The shoulders and water were added later. A slight ripple was applied to the water using **Ripple** from **Gallery Effects**, then, to finish off the rest of the water, the area below her chin (where the rest of the body is submerged) was selected, and lighting applied to it from **Effects: Surface Control** to get that glow on the water.

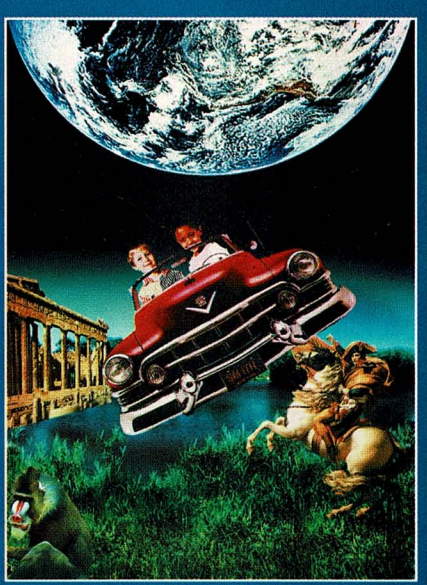
6 Most of the image was done using the airbrush tool, but the eraser was used with a fine point to add droplets of water on the nose and forehead and skin, and to add finer details to the eye.



'Woman coming out of pool' – you can see the influence of Junior's airbrushing experience.

Who's Junior Tomlin?

Junior is a freelance illustrator who started doing computer game covers ten years ago. He has since moved to record covers and rave flyers, and was involved in the film *Nightbreed* by Clive Barker as a creature technician. His style is part sci-fi, part fantasy.

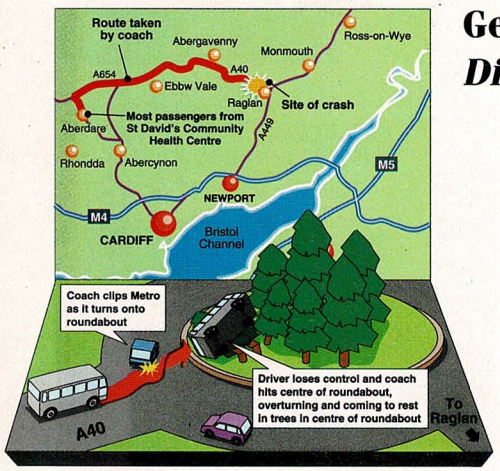


This image by Alan Smith shows that you can produce really rather impressive results through clever use of quality clip art, like the Corel or PhotoDisc collections.

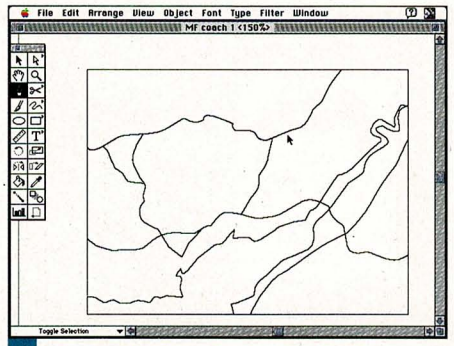
Continued on next page

Illustrator graphics...

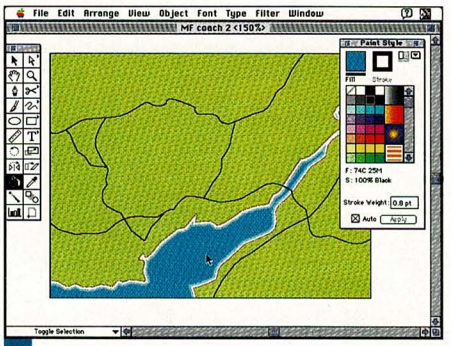
Geoff Fowler uses *Adobe Illustrator* and *Dimensions* to create slick, informative images.



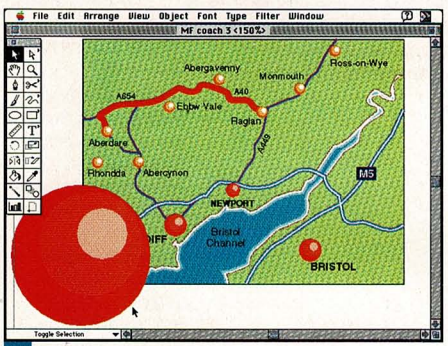
Images like this are popular with magazines and papers because they clearly convey a huge amount of information.



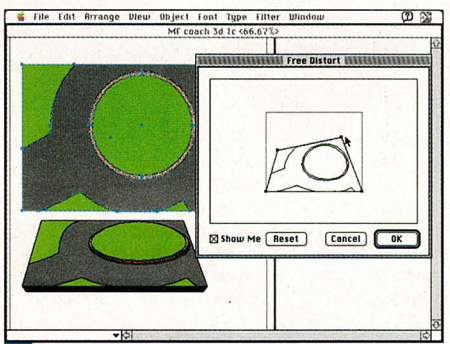
1 An informational graphic should try to put over information that adds to the readers' grasp of the accompanying article. This graphic was produced for a newspaper and covers a coach crash that occurred recently in Wales. There are two main parts to the graphic, a 3D representation of the incident and a map showing where it happened. The map started off simply as a tracing from a road atlas showing the area around the incident, including the main towns and cities in the area. Line width does not matter at this stage. As the map contains both land and an area of water, it is a good idea to know whether the land will overlay the water or the water overlay the land.



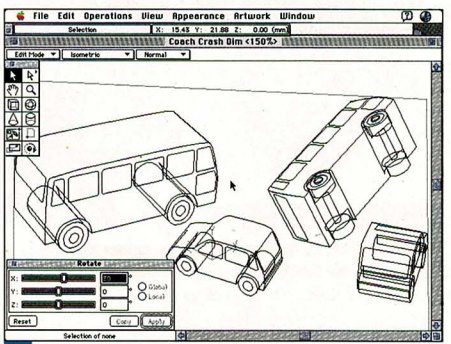
2 With this map it was decided that the water would be at the back, visible through the V-shaped gap in the land mass formed by the Severn Estuary. The land was given a standard green colour and the water a darkish blue. Choosing the right colours is important – certain colours do go together well in certain types of graphics. To give the graphic more of a '3D' feel, extra colour bands were added around the coast of the estuary, a lighter blue above the water and white below the land.



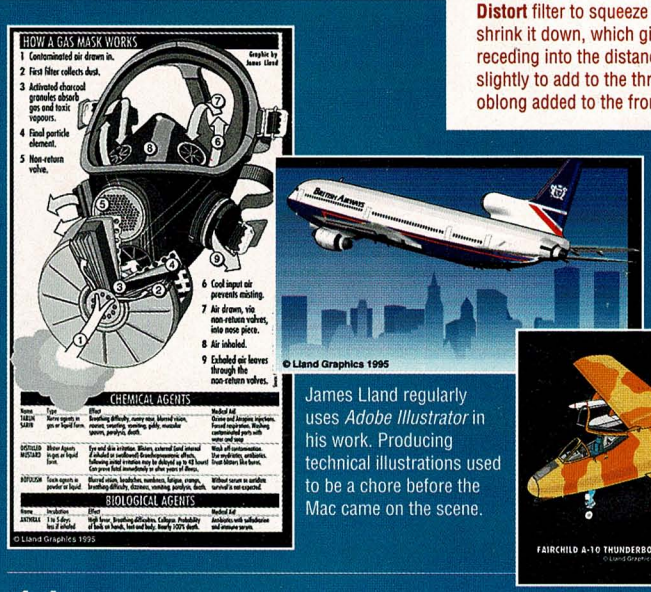
3 Most roads were given a 2pt line, while the motorways were created by enlarging the line to 4pt, colouring it blue, copying it, pasting the copy in front of the original and colouring it white and reducing the line width to 1pt. This is a useful technique for creating roads. Main towns and cities can be shown in a variety of ways – outlines of built-up areas, coloured disks, dots, squares... the list is endless. Coloured 'globes' are created simply by overlaying three coloured circles – a large one in the basic colour and two smaller ones offset in one corner of the main one to form a highlight. When reduced this creates a fairly convincing globe without resorting to using gradients and the various drawbacks of having lots of these spread around the graphic.



4 The incident itself was to be portrayed on a 3D panel at the bottom of the map. The first task was to create the base panel, and on it the roads and central roundabout where the accident happened. This started off as a flat plan view, and was laid back in perspective using the **Free Distort** filter to squeeze in the top corners of the box and to shrink it down, which gives the impression of the panel receding into the distance. The roundabout was raised slightly to add to the three dimensional effect, and a thin oblong added to the front of the panel to give it depth.



5 The vehicles were actually created in *Adobe Dimensions, Illustrator's* 3D companion program. Doing this meant that although two views of each vehicle were needed, we only had to create each vehicle once and then could export a view of it from any desired angle into *Illustrator.* The vehicles were created by drawing a side view in *Illustrator,* then exporting this into *Dimensions* to be extruded and finished.


HOW A GAS MASK WORKS
1 Contaminated air drawn in.
2 First filter collects dust.
3 Activated charcoal granules absorb gas and toxic vapours.
4 Final particle element.
5 Non-return valve.
6 Cool input air prevents misting.
7 Air drawn, via non-return valves, into nose piece.
8 Air inhaled.
9 Exhaled air leaves through the non-return valves.
CHEMICAL AGENTS
BIOLOGICAL AGENTS
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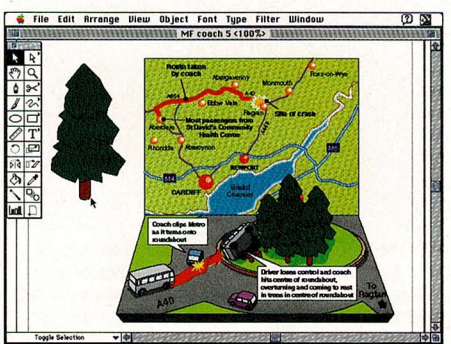
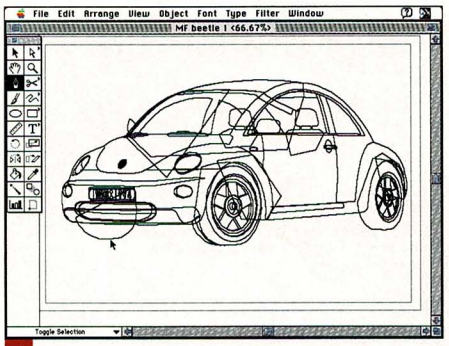
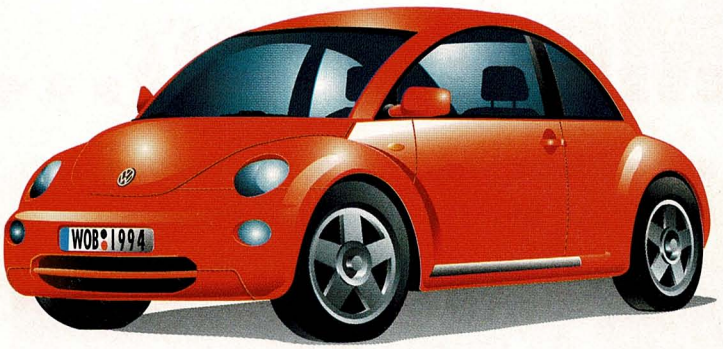
James Lland regularly uses *Adobe Illustrator* in his work. Producing technical illustrations used to be a chore before the Mac came on the scene.



6 The vehicles were placed on the base panel in the desired positions, and the directional arrows and the flash showing the impact were added. The map and the base panel were brought together and annotations and pointer panels applied to finish the graphic. The pointer panels were simply created by drawing a box using the Rectangle tool, then adding three anchor points on one side. The middle one of these points was dragged out to create the pointer, and the text put inside the box.



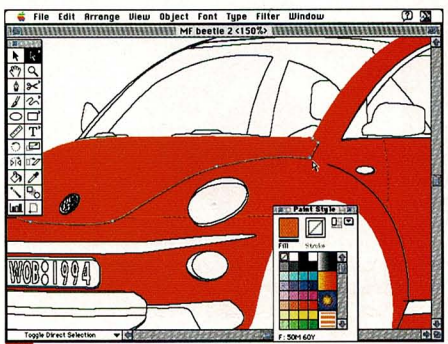
1 This graphic abandoned the usual black outlines and used more *Illustrator 5* gradients than usual to compensate. Once a preliminary sketch was done, it was then scanned in and traced, and imported into *Illustrator.* The tracing stage is important in any graphic, and a fair amount of skill comes into play when deciding how an image should be broken into sections that can be individually coloured at a later stage. It is better to overlap adjoining sections rather than trying to butt up shared edges exactly, but this requires a little mental dexterity in planning the order in which sections are drawn and will overlap each other.



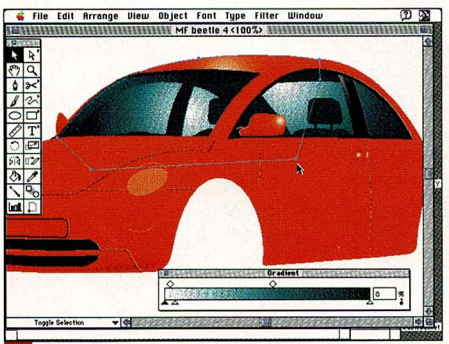
The finished result – a slick, attractive image that reproduces effectively even at large sizes.

WHO'S GEOFF FOWLER?

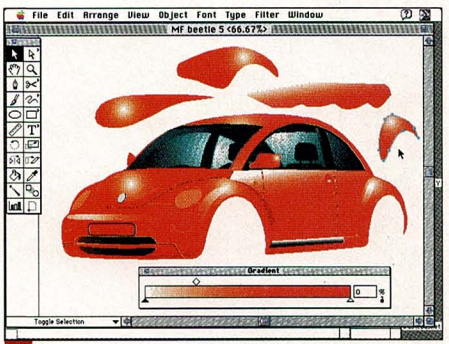
Geoff's company, Fowler Media Graphics, produce graphics for magazines and newspapers, often working to extremely tight deadlines.



2 Next the largest section of the car was given a basic orange fill. To make things a little easier some parts of the car, like the wheels, were hidden to make the screen less crowded. Most of the shapes in the car will not have outlines, but a few lines are necessary to delineate edges of doors, bonnet and so on. These lines are put on using a dark orange colour but are then duplicated, with the copy placed next to the original and given a very light orange colour. This is to simulate the highlight and shadow that appears at the junction of objects – this method is more realistic than using a simple outline.

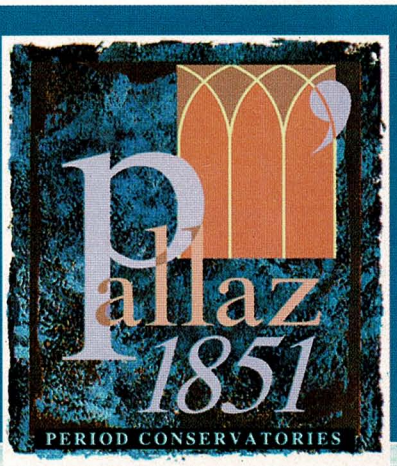


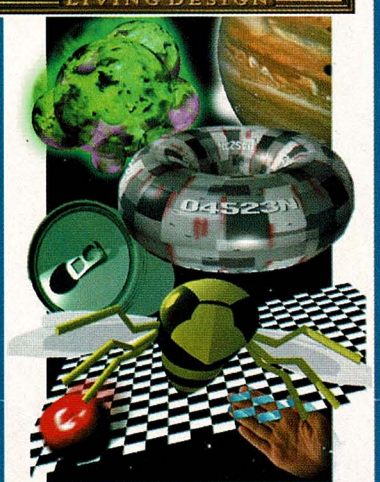
3 The interior was handled quite simply, with the seats, headrests and other detail depicted as silhouettes over a graduated 'window' background. Extensive use was made of the **Pathfinder** filters to get the silhouette shapes, which had been drawn fairly roughly, to butt up neatly with the edges of the window area, chopping off the bits that protruded from the perimeter of the window area. The colours of the interior were kept rather muted and based upon a blue-grey to give the impression of viewing the interior through glass.

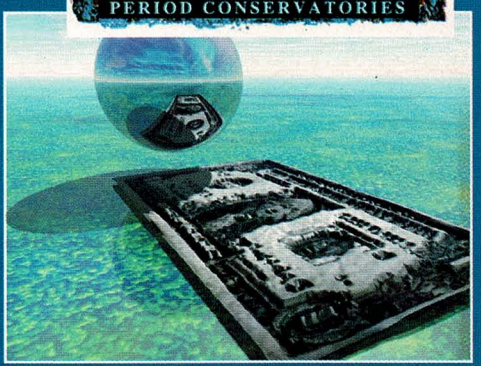


4 Obviously the shine on the car body is important to get right. This can be achieved by using simple shapes that follow the car's curves. These shapes are filled with radial fills, which go from a white highlight to the basic orange colour of the largest section of the car. It doesn't need too many of these gradient shapes to achieve the desired effect – just a few placed strategically will do. It helps to have a good idea where the main light source illuminating the car is coming from. Highlights placed indiscriminately without regard to light direction can destroy the 3D effect of the illustration.

5 The wheels were completed last. The frontmost wheel was coloured, then, to save time, the wheel trim was duplicated, squashed and reduced slightly to serve as the rear wheel trim. Details like the number plate and headlights were completed, and a not-too-intrusive shadow was placed underneath the car as a finishing touch. Voilà, the illustration was complete! A lot of gradients were used on this illustration because it was going to be printed large. If it was destined to be used at a small size or with a low printing quality there would have been little point in putting so many gradients in, because they simply would not have reproduced properly.







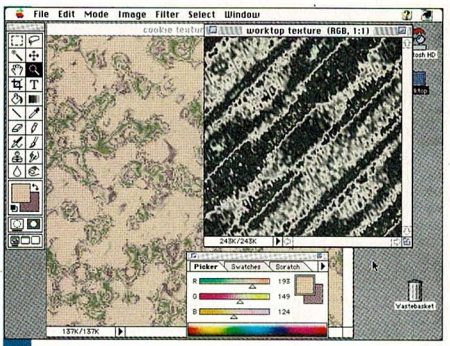
Andy Nightingale uses just about every piece of graphics software he can lay his hands on to produce his art. Andy's a freelance retoucher and digital artist, so he knows his stuff.

Continued on next page

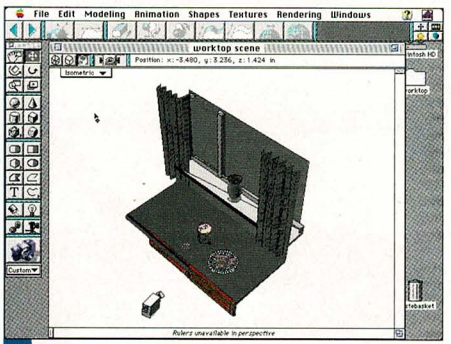
3D Modelling...

Andy Betts uses *Strata Studio Pro, Photoshop 3.1* and others to create his 3D modelled images.

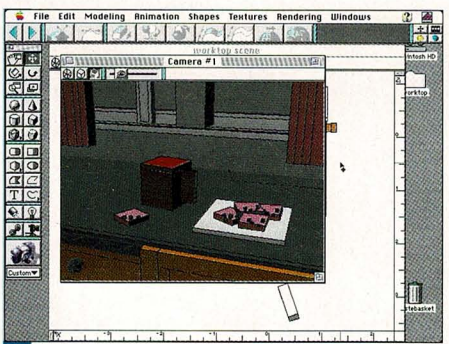
'Cookie Time' is based on the kitchen in Andy's own home, and is built around 3D objects originally generated by 'extruding' simple basic shapes in *Strata Studio Pro.*



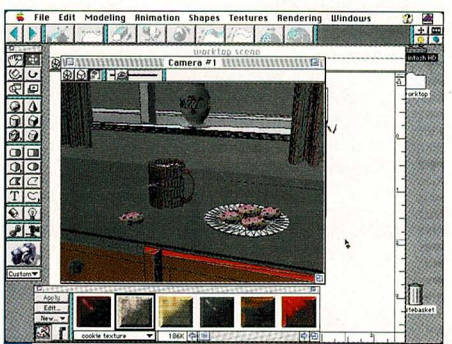
1 The chocolate chips are textured a basic brown colour. The rest of the cookie texture was created in *Photoshop* using *KPT Texture Explorer* – the texture was then applied to the cookie model with a matt finish. Similarly, the texture of the mug and the worktop were also created using *Texture Explorer,* but these textures were applied with a glossy, reflective finish to represent the materials the objects would be made from in the real world.



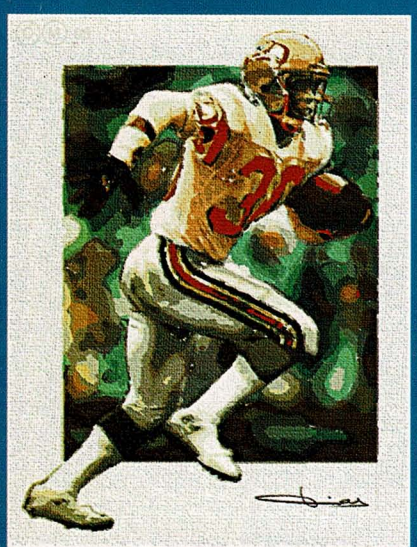
2 The curtains were constructed in *Studio Pro* by drawing then extruding a wavy line to create the ripple effect. The texture, created in *Texture Explorer,* was applied to give a matt finish. The leaded window in the background is a black cross drawn onto a white background in *Photoshop,* then applied in a repeat tile pattern as a transparency map in *Studio Pro.*

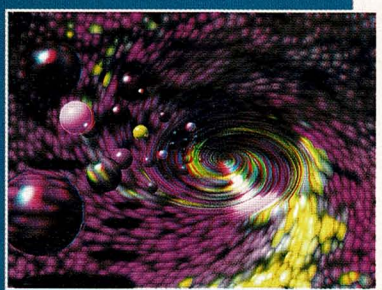


3 Other textures such as the tiles or the porcelain marble of the lathed vase on the window sill are *Studio Pro* textures. These were applied with either a gloss or a matt finish, once again depending on the material that they represent.



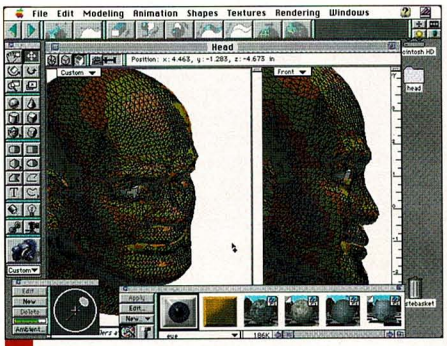
4 With all the models positioned, the scene required two light sources, one representing the light coming in through the window, the other lighting the sides of the objects facing the camera. The scene then took about ten hours to render in Raytrace mode in *Studio Pro.*



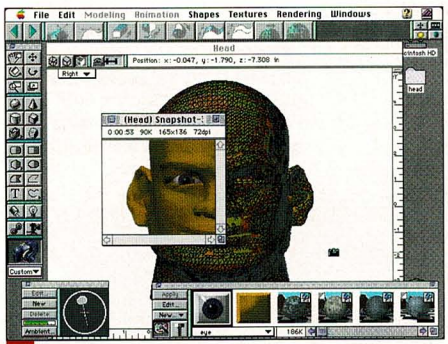


Carlos Alberto used a number of high end graphics packages to produce these images including *Adobe Photoshop, KPT Bryce, Strata Studio Pro, Adobe Streamline* and *Fractal Painter.*

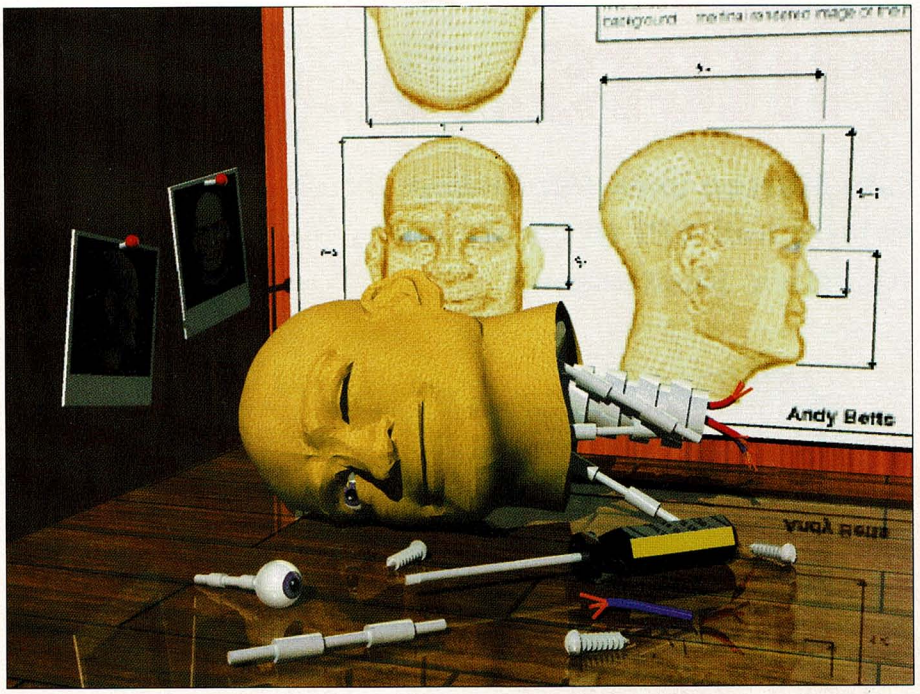
5 The final touch was added in *Photoshop,* where the light blue background that you can see through the window was pasted into the picture.



1 The head model itself was a sample 3D scanned DXF file. It was imported into *Strata Studio Pro*, where it was cleaned and smoothed for use. The individual facets on the eyelids of the model were removed so that the eyes of the model would be open.



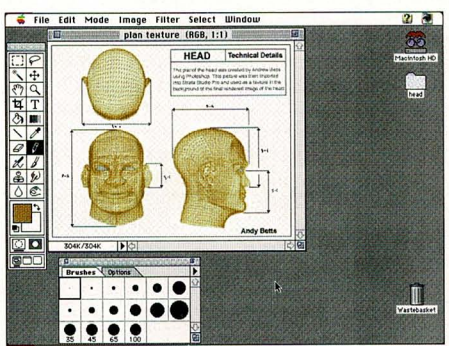
2 The skin and eyeball textures were created in *Adobe Photoshop* and saved as PICT files. After importing them into *Studio Pro* they were applied to the model as textures, using simple spheres as eyeballs. The skin texture was applied with no reflectivity for a matt finish.



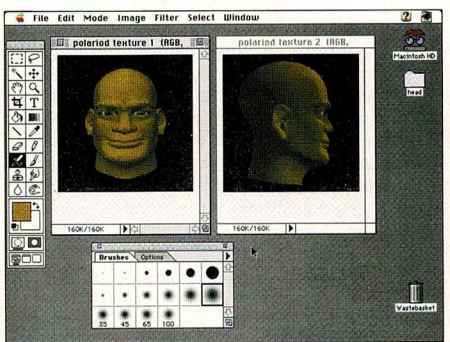
'Lost a Bit' was inspired by the classic *Frankenstein* movies, and amply displays Andy's ability to create a more surreal style when necessary.

WHO'S ANDY BETTS?

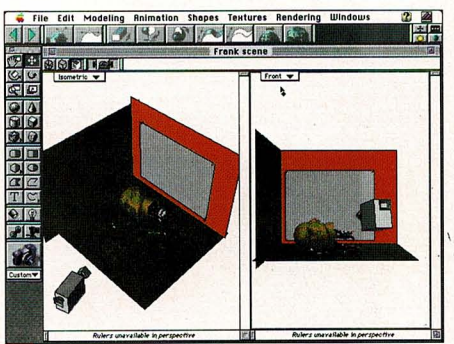
Andy is a graphic design student in the final year of his degree, specialising in animation. He produces most of his work from home on a Centris 660AV with 24Mb of RAM, but hopes to upgrade to a PowerMac and Wacom Art Tablet soon, particularly with the amount of rendering he does.



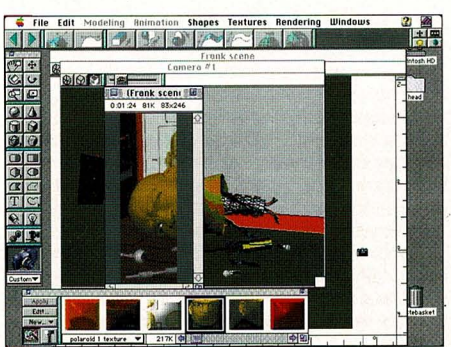
3 The head was rendered using both hidden line and Phong shading from three different angles. These images would be used later in the plan and photograph textures seen in the background of the scene.



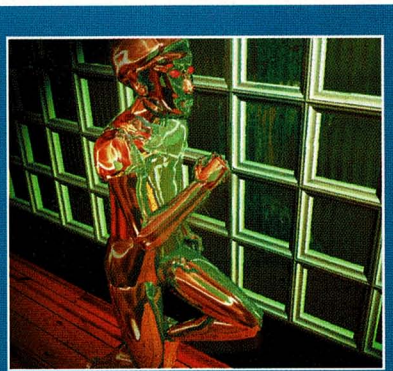
4 The internal organs of the neck were created as a separate model, using cylinders of various diameters and lengths linked together to represent a spine structure. This was then textured to appear metallic. Other items, including the wood surface, screwdriver, screws, wire and the eyeball on its metal stalk, were also created as separate models, given textures, and imported into the scene.

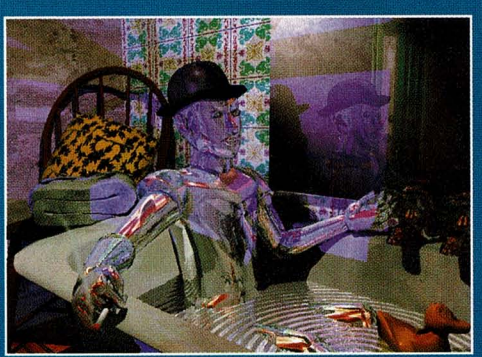


5 The previously rendered images of the head, in hidden line shading as seen from the three different viewpoints, were combined into one image in *Photoshop* to create the background plan texture. Other details on the plan, such as the measurements, technical detail and the name, were also added in *Photoshop*. The Phong shaded images of the head were made to look like photos by adding white borders. The background was constructed from three flat planes with a wood texture mapped on.



6 Finally, with all the model's head, neck, screwdriver, plan, photographs and screws positioned in the scene, it was rendered using the Raytrace mode in *Studio Pro*. Raytracing the image to achieve all the reflections visible in the wood surface, at a resolution of 200dpi, took approximately three hours on a Centris – a PowerMac would certainly speed things up!





Alan Wild uses *Infini-D* and *Photoshop* in these images. 3D modelling enables almost anyone to produce stunning images in next to no time at all.

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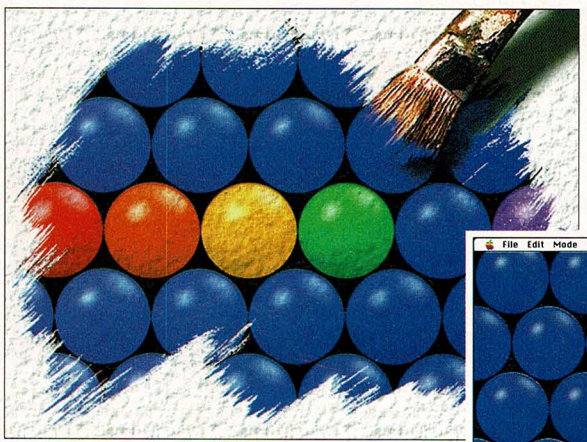
Filters...

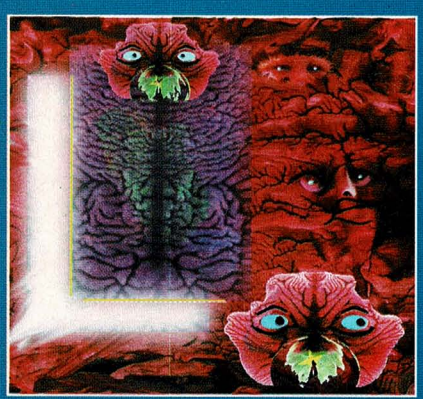
Paul Morton uses *Photoshop*, *Painter* and *KPT* to create his 'Smarties' illustration.



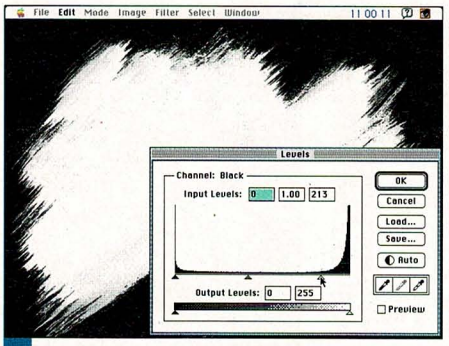
Simple but highly effective illustrations can be achieved easily using geometric shapes and bright colours.

WHO'S PAUL MORTON?

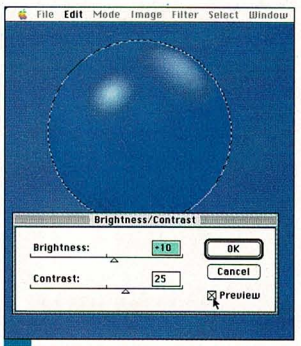
Paul is a freelance illustrator who is always looking for new ways to promote his work. Last year he compiled a digital portfolio of his Mac illustrations – 'Smarties' can be found in the first volume.



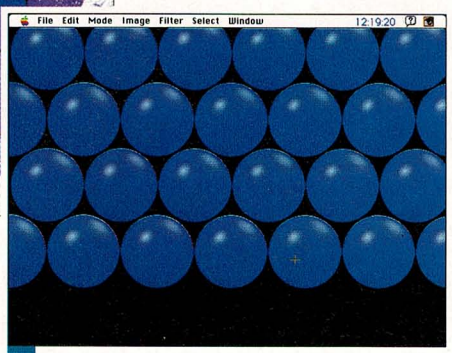
Just to prove that you don't need the latest high end PowerMac to produce fine art, we've included these stunning images by Colin Robertson. Colin put these works of art together on his LCIII with a mere 12Mb of RAM and a copy of *Photoshop*.



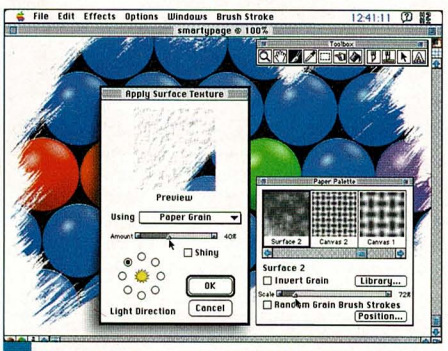
1 A real brush was used to create a rough brushstroked patch of black, which was scanned into *Photoshop* as a greyscale. This was turned into a negative (white on black), then **Image... Map:Invert**. **Image... Adjust:Levels** was used to increase the contrast, then using Select All and Copy, the image was copied to a new channel (**[F6]** brings up the channels palette, create a new channel – #4, then **Paste**). It was converted to RGB mode and Saved.



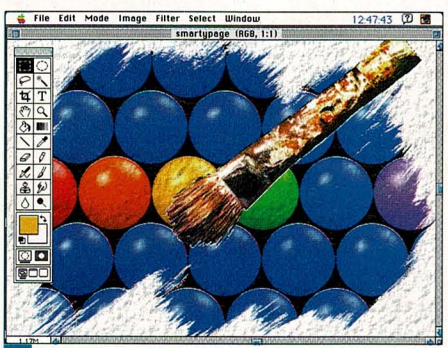
2 Back in the main RGB image, the window was filled with blue replacing the white brushstrokes (now stored as a selection in channel #4). A circle was drawn using the Oval tool set to a 1 pixel feather, then, using *Kai's Power Tools*, **Glass Lens Soft** was applied twice to the circle selection, the second time holding down **[9]** on the numeric keypad so the highlight hit from the upper right. The colours were then lightened using **Image... Adjust:Hue/Saturation** and then **Brightness/Contrast**.



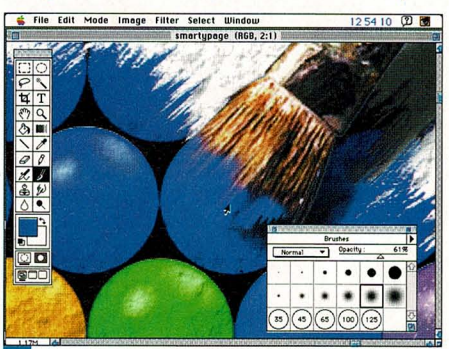
3 With the circle selected, **Select...Save Selection** saved to a new channel. The sphere was **Cut**, then pasted back onto a black filled window, and moved to the top left. Copies of the sphere were Option-dragged across the top (holding down **[shift]** to maintain a straight line). Once full, the top row was deselected, and the black background clicked on with the Magic Wand tool set to 45. **Select... Inverse** selected just the row of 'smarties', and by Option-dragging downwards and across a second row was cloned. For the rainbow colours, **Select... Load Selection #5** was selected. Holding down **[option]** and **[command]**, the selection was moved precisely over one smartie. Using **Image... Adjust:Hue/Saturation** each smartie's colours were changed (Colorize box checked). The whole window was selected and **Cut. Select... Load Selection #4** loaded the brushstrokes outline, then **Edit...Paste Inside** gave the colourful smarties pasted inside the rough brushstrokes.



4 Next, the image was taken into *Painter* to add a watercolour paper texture to the whole image. Choosing the Surface 2 texture from the Paper palette, **Effects...Apply Surface Texture** was used with the shown settings. Once that was done, it was back to *Photoshop*.



5 On a scan of an old decorating brush, the background was cleared off using the Lasso tool, and unwanted bits **Deleted**. The brush was selected from the white background using Magic Wand, then **Inverse** and **Copy** were used to copy it to the smarties image. The brush was **Pasted** onto the smarties image and rotated to the desired angle, then **Cut** to memory. In a new channel, #6, the brush was **Pasted** in, filled with white and deselected...



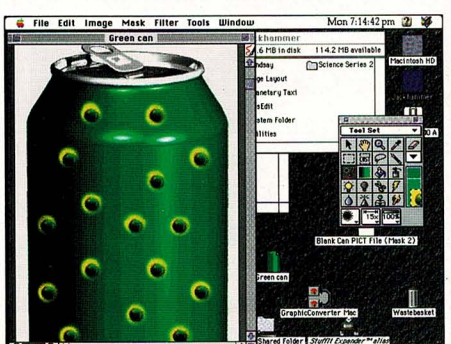
6 ...this gave a shape that was used to form a convincing drop-shadow, once blurred. **Filter... Blur:Gaussian** blur was selected to soften the brush shape, then, back in the main RGB smarties image, **Select... Load Selection #6** was chosen, and used to fill the softened brush shape with 90% black. Choosing **Paste**, the full-colour brush reappeared from memory, and was repositioned over the shadow, then rotated to lift it. Using the Paintbrush tool set at 60% opacity, the bristles were coloured with blue lifted from the nearest smartie. The fine details were added using the Lighten and Smear Tool, then the brush deselected using **Select... Defringe**.

Colouring...

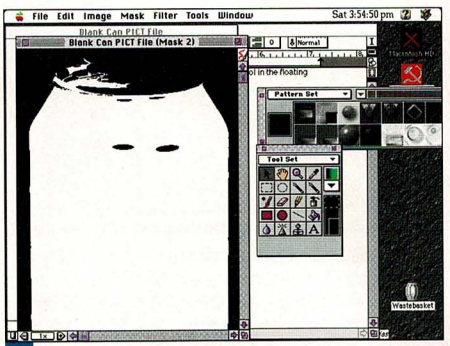
Having given away *Color It!* last issue, this issue we have suggestions for making make the most of it.

1 Open the blank can in *Color It!* and click on the Magic Wand tool in the floating tool palette. Click and hold on the lower left corner of the tool palette, and the Wand Sensitivity window will appear. Set this to about 70%. Clicking in the centre of the can selects most of the blue area. Choose **Selection to Mask** in the **Mask** menu, and this section is transferred to the mask you're going to use. Go back to the image, set the wand to 30% sensitivity, and click on the dark blue strip on the left of the can. This selects the other part of the image we need to use in the mask. Click in the **Mask** menu, pull down to the operations submenu, and select **Add Selection**.

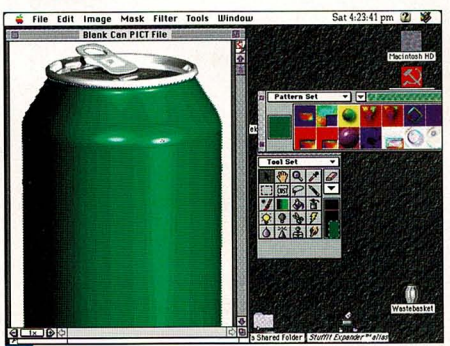
3 You should now have something that looks like this. Go back to the can image and select **Mask to Selection** in the **Mask** menu. (If it won't let you select this, make sure **Document** is selected in the same menu.) The mask outline will be overlaid on top of the can.



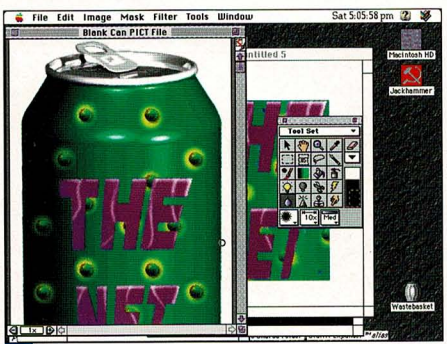
5 Now you want to put a pattern on your can. *Color It!* comes with a number of redefined patterns – simply select one from the **Pattern** palette and use one of the tools to apply it to the can. Here we've used the Paintbrush to paint a spots pattern on.



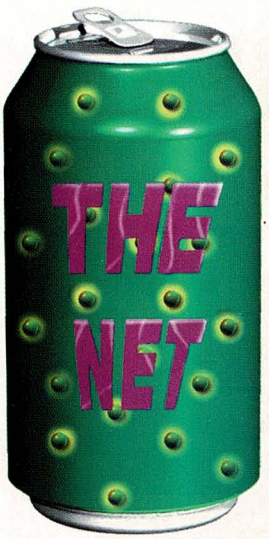
2 Now you need to clean up the mask and delete the parts of it that you don't need. Use the Eraser tool to carefully take away the top part, which represents the silver top and ring pull of the can. Once you have done this, select **Blur** from the **Filter** menu and set the **Intensity** to 1. This softens the edges of the mask and reduces the effect of the 'jaggies'.



4 To change the colour, click and hold in the colour box on the bottom right of the toolbox palette, and the colour picker will appear. Select the colour you wish to make the can and release the mouse button. Go to the **Filter** menu, pull down to the **Colour** submenu, and select **Change Colour**. After a moment or two, the colour of the can changes to your choice. You may want to experiment with this until you get it right.



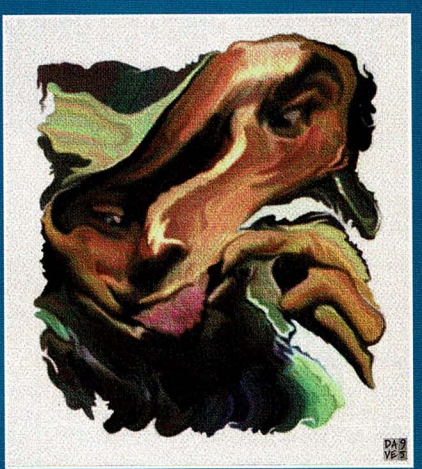
6 Finally, it's time to add the text to the can. Use the Text tool from the tool palette and click on the middle of the can to bring up a text box. Use the Pointer tool (the arrow) to position this in the middle of the can. Type in your text, in this case 'The Net', and select your desired font and size. To distort the text, select your text box, click in the **Image** menu, drag down to **Effect**, and then select **Distort** from the submenu. Use the drag handle on the text box until you are happy with the result.

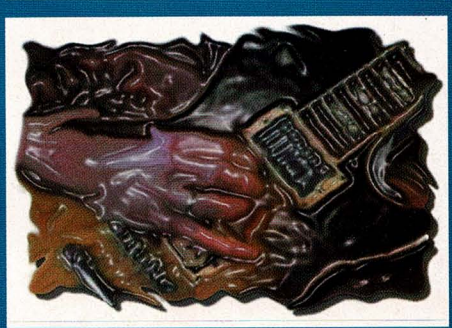


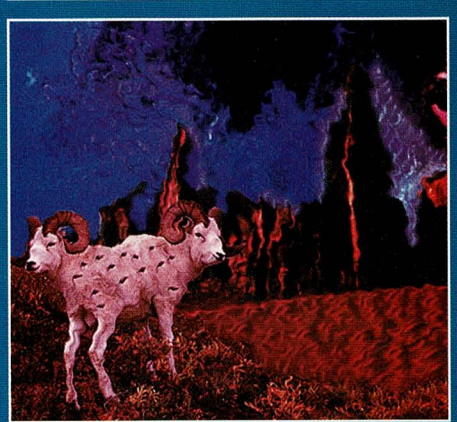
A quick and easy image produced using *Color It!* – which we gave away last month.

WHO'S ALAN EKLAND?

Alan is a graphic designer who runs his own design company in London. On the Cover CD we've included samples of work he has produced using *Photoshop*, *Raydream Designer* and *Painter*.



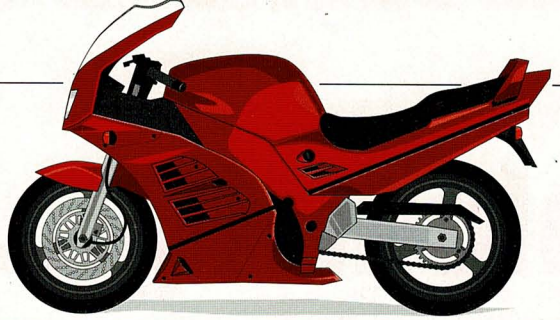




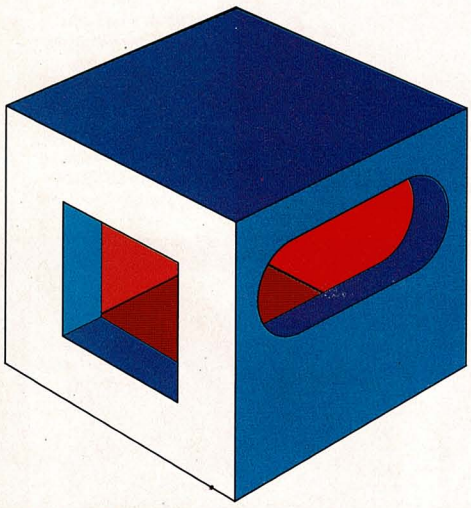
Dave Unstead shows some of the remarkable effects you can achieve using *Photoshop* filters. Adding distortion or blur to an image in the correct proportions can turn a plain piece of art into a classic composition.

Continued on next page

Drawing...



Nick Aspell explains how he uses *FreeHand* to create basic shapes.

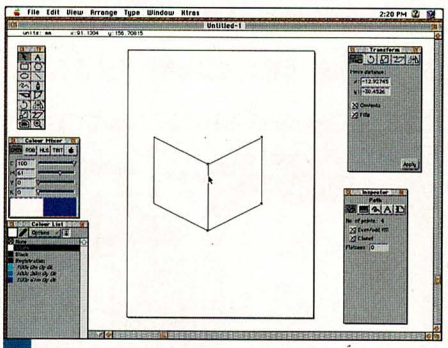


Drawings like the motorbike (above) are built up from basic shapes. When drawing shapes, set the default Fill to white rather than transparent to make objects easier to select.

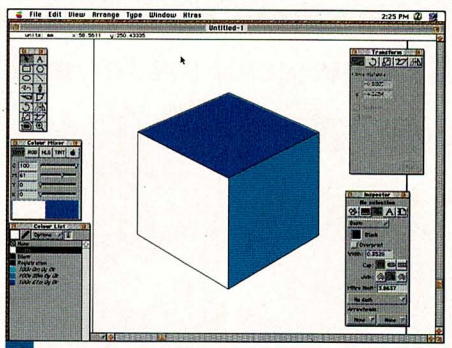
WHO'S NICK ASPELL?

Nick is Art Editor on MACFORMAT's sister magazine *Amiga Shopper*. He's also a bit of a keen motorbiker, has just given up drinking and does lots of *FreeHand* illustrations.

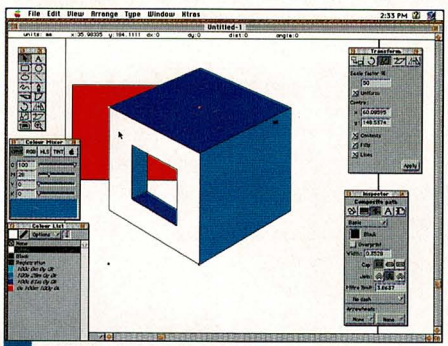
Henry Milton rendered these images in *KPT Bryce*, the landscape modelling program (see page 122 to order it at a bargain price). If you want to create fantastic off-world images on a budget, *Bryce* is for you.



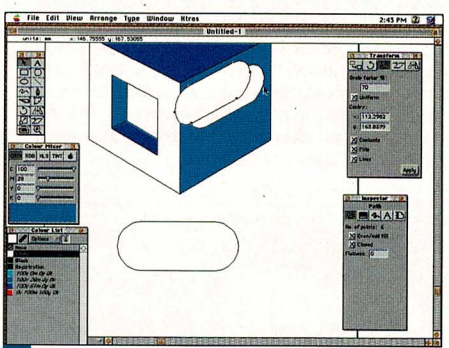
1 The basic techniques are the same whether you're creating a complex drawing like the RF-600 motorbike (above) or something simpler. For the box here, begin by drawing a rectangular shape, then clone it using **[command] [=]**. Ungroup it using **[command] [U]** so that you can select the handles separately, swap to the Reflect tool, Shift-select the bottom handles and flip the object through 180 degrees. For the other side, clone and flip the object once more in exactly the same way.



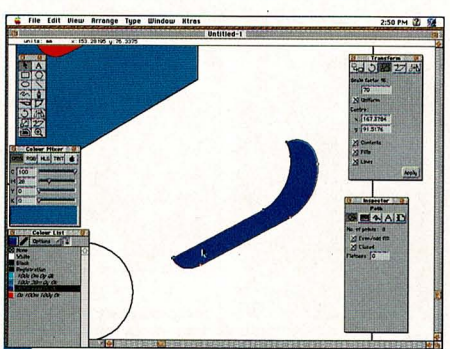
2 The basic shape you get this way is isometric, so add perspective to make it look a bit more realistic. You could draw guides with vanishing points, but it's enough to hold down **[option]** and drag the ungrouped handles individually to skew the object by eye. Then you can just define a range of related colours in the colour mixer, add them to the colour list, and drag and drop colours from the colour list onto the facets of the object. This is one of the handiest shortcuts introduced in version 5 of *FreeHand*.



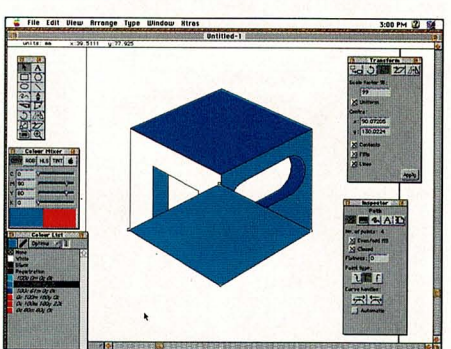
3 Nothing is grouped yet, so you can clone shapes as needed. For the 'window', clone the object, scale it down (use **Scale** setting in the **Transform** window), then tweak the shape by eye to match the overall perspective. Clone the shape again, ungroup, and reshape to give the ledges some depth. To get these precise, zoom in again in Preview mode – it helps to select **Snap to Point** from the **View** menu too. To make all this into a 'hole' in the side of the box, select the outer object (the 'wall'), then the inner one (the 'window'), then **Join** the objects. Objects behind now show through the window but are masked by the wall.



4 Draw a circle, holding down **[shift]**, then ungroup it. Shift-select the top and bottom handles and select **Split Object** in the **Arrange** menu. Click off the object, re-select one handle and pull it apart, holding down **[shift]** to keep everything in a straight line. Switch to the Freehand tool, select one end point, hold down **[shift]** and draw a line to the opposite end point. Change to the Pointer tool, select the other end, then hit **[command] J** to close the object. Group the new shape. Shear the object so that it is parallel with the bottom of the main object, then rotate it to align with the top. Scale it down using the Transform window.



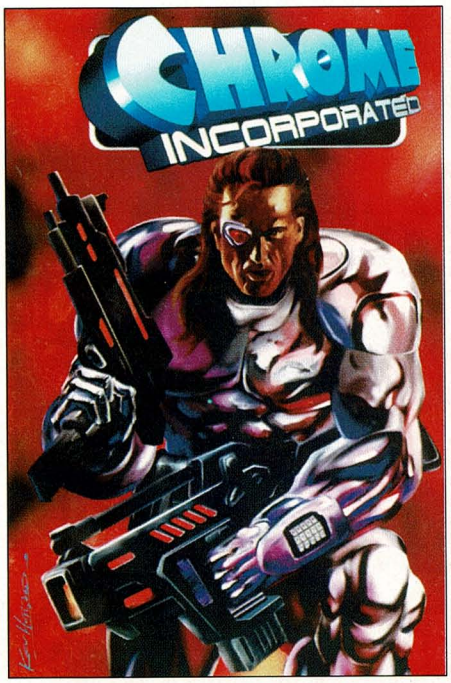
5 Now you can give the object a 3D effect. Take the shape and its clone off to one side to work on it. Go to Preview mode, zoom in, and add a point where the two shapes intersect. Select the two points and split the object. Deselect and delete the bits you don't need. Do the same again with the top object. Drag a marquee around the whole thing to make sure you've selected all the handles, then turn it into a closed object and **Fill** it. Join the cutout shape with the master shape by selecting the 'inside' shape first, then the outside shape, and **Join** them.



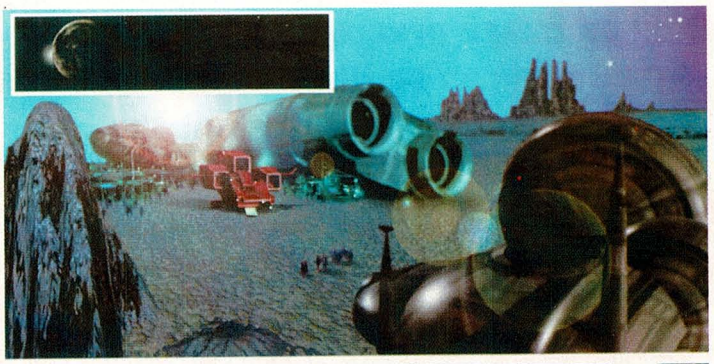
6 Move the cutout up to the main object. Go to Preview mode and zoom in to make sure your positioning is precise. For the inside surfaces which show through the holes, it's a straightforward procedure to clone the opposite surfaces (holding down **[option]** so you select only one shape, not all the joined objects), move them into position and send them behind. Zoom in and switch to Preview mode to check that everything lines up – you'll have to shear the sides a little to match the perspective you added at the start. Then it's just a matter of tidying up.

Cartooning...

Comic illustrator Kevin Hopgood uses a variety of packages including *Photoshop, Painter, Power Photos, Dimensions, Poser* and *KPT Bryce.*



This piece uses a combination of *Photoshop, Painter, Power Photos* and *Adobe Dimensions* for the logo. The figure was drawn off-screen, then matched in 3D using *Poser.* Using the lighting controls in *Poser,* various effects were experimented with before settling on this colour scheme. This was used as a basis to paint from.



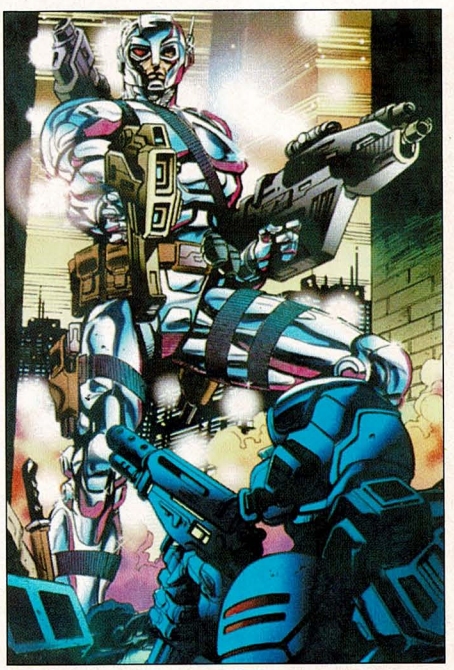
KPT Bryce, the landscape generating program, was used for the lunar surface. The 3D models were created in *Alias Sketch* and composited in *Photoshop,* using the *Gallery Effects* Watercolour filter to achieve a less 'airbrushed' look.

Who's Kevin Hopgood?

Kevin is a comic illustrator who has worked for Marvel comics in the States as a penciller, and has also worked on a new comic from Marvel called *Chrome Incorporated.*

After scanning a pencil drawing into *Photoshop,* the whole drawing was put into a separate layer, filling the background white. Using the Pen tool, selections were made of the various areas to be painted into. The latest version of *Painter* can read *Photoshop* paths, and puts the contents of any layer into a floater – this floater was made semi-transparent and used as a guide for painting. The paths were used as friskets to mask areas of the painting and keep the edges clean.

The colours were blocked in using *Photoshop,* then it was worked into with pastel brushes in *Painter.* For the final touch, the Water brush was used to blend things in and smooth the transitions.



The black and white line drawing was scanned in and painted up, using the Lasso tool to make selections. The Airbrush and Gradient tools were used in darken-only mode to protect the black line. Finally, any lettering in these pictures was applied in *Adobe Illustrator.*

The start?

That's all for now – but if you're a Mac artist, send us your masterpieces on disk for future art features – our address is on page 6.

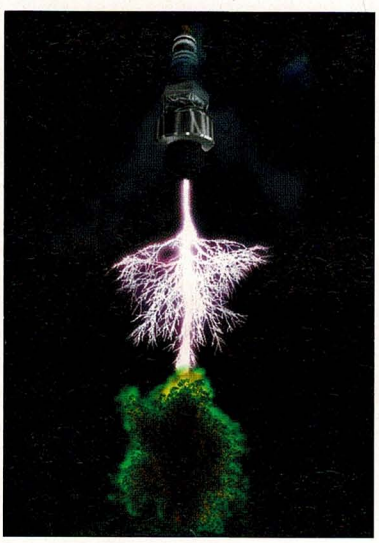
The answer is glowing in the dark

However limited an image processing program may be, adding 'plug-in' effects can be like a course of steroids – instant muscle! Brian Larkman tries out the FX.

CONVOLUTION

Anything that wraps or folds itself around something else is a convolution – hence the Convolvulous or 'bindweed' plant. In image processing it is a mathematical operation – applied to each pixel in turn – that is calculated according to the value of the pixels surrounding (or convoluting) it. In *Photoshop* it is the Custom filter.

Like children to sweets, or politicians to a photo-opportunity, image processing aficionados make straight for the Filters menu when they try a new program – FX junkies one and all. There is a good reason for this – much of the new and experimental special effects products produced by third-party developers are too specialised to package on their own. Riding *Photoshop's* wave via its plug-in Filters menu gives developers access to a much larger market, and a chance for their products to be tried out by lots of people. This issue we look at how to use some of the special effects built into *Photoshop*, *Color It!* and *PhotoFix*, plus some of the plug-in filters you can use with them. A wide range of third party filters were described in MACFORMAT 27; here we're covering the plug-ins used specifically for the illustration.



See that glowing lightning stuff? That's a tree, that is. Find out how to make a spark plug jet off into space with spectacular effects.

Photoshop has the most comprehensive set of built-in filters and dedicted plug-ins, but these don't work in other programs. Adobe greatly enhance their already powerful feature set with *Photoshop*-only plug-in tools, offering useful functions like Motion Blur, Twirl, Lens Flare, Lighting Effects, and Clouds. Programs like *Color It!* and *PhotoFix*, however, rely on third party plug-ins to bolster their limited tool set – but because third party producers avoid duplicating features already built into *Photoshop*, a whole range of important tools are missing from *Color It!* and *PhotoFix*. This situation has changed with the arrival of *KPT Convolver* earlier this year, which, rather than adding new functions to *Photoshop*, makes custom convolution processes easier to use and provides convolution for programs that lack it.

Of the other two programs, though it lacks many of the more exotic features, *Color It!* has the better range of built-in effects, especially in the new version – 3.0. It now includes most of the essential filters, such as Levels and Curves, Threshold, Add Noise, Despeckle and Unsharp Mask, all with 'Before and After' previews. It also has its own, easy to use convolution or 'custom' tool, enabling you to 'brush on' convolution effects, which is powerful and useful.

Most of the third party filters work reasonably well in *Color It!*, but you can't sort the various types of tools (or large collections, like *Kai's Power Tools)* into separate folders within the plug-ins folder, as you can with *Photoshop*. Irritatingly, you have to mix them in with all the other millions of plug-ins you might have. Still, you can always use aliases and keep the originals elsewhere instead.

Until recently, *PhotoFix* has been the poor relation, with virtually no dedicated filters at all. Third party plug-ins are therefore vitally important, giving this nine-stone weakling some much needed muscle. *PhotoFix 3.0*, however, has now arrived – offering variable tool settings, four new distortion tools and 16 new image enhancement and effects filters. The new features still don't make *PhotoFix* a world beater, but for the price it is a good paint and effects program that works with a really low memory overhead. As a bonus, the way it handles third party filters – enabling you to select the *Photoshop* plug-ins folder in Preferences, so that nothing needs to be 'aliased' or copied at all – is far better than the *Color It!* method.

UNSHARP MASK

Although most programs provide a simple 'one off' Sharpen tool, Unsharp Masking is a much more accurate and controllable method of removing blurring. It isn't actually a Mask that hides Unsharpness, but the remnant of a pre-digital photographic technique where you use a thin negative (or mask) superimposed over a positive image and slightly offset to enhance the contrast at the edges.

IMAGE PROCESSING SOFTWARE

In this series of tutorials, you'll find three different image editing programs referred to: *Color It!*, *PhotoFix* and *Photoshop*. *Photoshop* is the universally acclaimed industry standard. For a more extensive list of plug-ins, see our plug-ins feature in MACFORMAT 27.

■ Adobe *Photoshop 3.0* costs £737.90. Contact Principal on 01706 832000.

■ *Color It! 2.3.5* was on MACFORMAT 31's floppy and CD. Turn to page 123 to order your copy if you missed it.

■ *Color It! 3.0.4* costs $149.95 plus $15 P&P. Contact MicroFrontier in the US on 001 515 270 8109. However, you can upgrade for just £44.95 in our special MACFORMAT offer on page 122.

■ *PhotoFix 3.0* from Le Pixel costs £116.33 for the RGB version, which includes a CMYK module. For details contact Linographic on 01252 376103.

■ *Andromeda 2* costs £92.83. Contact Principal on 01706 832000.

■ *Kai's Power Tools 3* costs £151.58. Contact Principal on 01706 832000.

■ *KPT Convolver* costs £151.58. Contact Principal on 01706 832000.

■ *Specular Infini-D 3.1* costs £703.83. Contact Gomark on 0171 731 7930.

■ *Tree Professional* from Onyx Computing costs £499.38, including the libraries. Contact Gomark on 0171 731 7930.

■ *Xaos Paint Alchemy 2.0* costs £92.83. Contact Letraset on 0171 928 3411.

■ *Xaos Terrazzo* costs £186.83. Contact Letraset on 0171 928 3411.

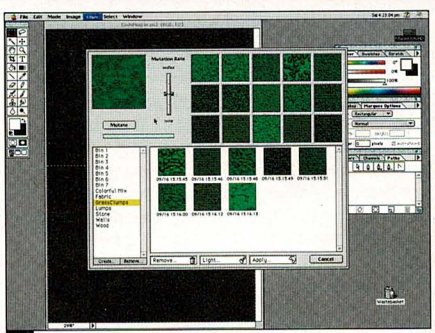
■ *Xaos Fresco* costs £186.83. For more information contact Letraset on 0171 928 3411.

This version of the tutorial illustration was created using *Adobe Photoshop*, because of its speed at handling the large image size required for magazine publication. AlienSkin's *TextureShop* and *Andromeda 2's* 3D plug-ins were used for the earth; *Photoshop's* Difference Clouds filter for the sky; and a variety of other filters for the foreground objects. 'God's Spark Plug' itself was rendered in *Infini-D 3.1*.

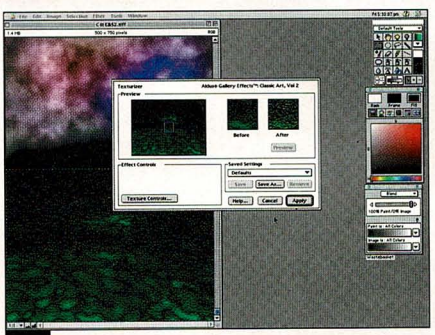
PLUG-IN

To enable extra functions and specialist tools to be added to a standard piece of software, some developers have provided a 'plug-in' architecture. Using this, third party software writers such as HSC and Xaos have been able to give *Adobe Photoshop*, *Color It!*, *PhotoFix* and other graphics oriented programs an increased range of abilities.

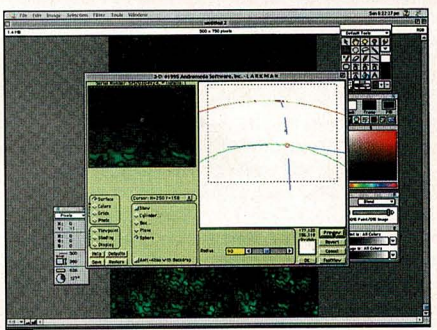
PRODUCING 'GOD'S PLUG-IN'



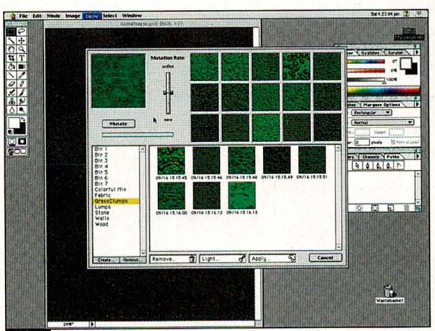
1 You can find the best bumpmapped textures using AlienSkin's *TextureScape* plug-in. As the name suggests, it forms alien skin-like textures, but you can also use it to produce many more recognisable surfaces, such as earth, bark and mossy banks.



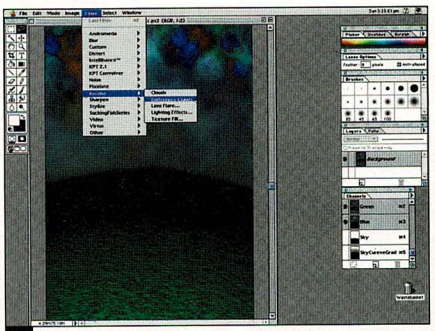
1a Another way of producing a textured, bumped surface is to use Xaos's *Paint Alchemy 2.0*, *KPT Texture Explorer*, or Aldus's *Gallery Effects Texturiser* shown here (see MACFORMAT 27 Cover CD), or the Bump plug-in (on the same CD). *Paint Alchemy 2.0* offers some unique surface effects, although it is best suited to applying overall paint effects to an image.



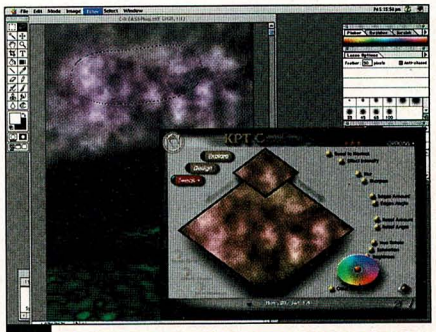
2 If you want to map textures onto simple 3D surfaces, by far the most effective and controllable plug-in is *Andromeda 2's* 3D. Here the sphere is hugely enlarged to give a planet-like curve to the horizon and distant perspective. This is emphasised by the hugely controllable shading that the 3D filter applies.



2a Alternatively, you can obtain a perspective effect using the Distort or Perspective tools in *Color It!*, *Photoshop* or, now, in *PhotoFix 3*. Resize the canvas to two or three times wider, keeping the textured area at the original size. Widen the bottom edge out with Image/Effects/Perspective (to give a perspective effect), then crop back to the original size canvas. If you want the curve, try the Spherise filter in *Photoshop* or *PhotoFix 3*. Add shading with the Darken or Airbrush tools.



3 *Photoshop* provides two excellent cloud rendering effects – Clouds and Difference Clouds. Both render reasonable cloud shapes at random within a selected area (foreground colour clouds against background colour sky), but repeated use of Difference Clouds gradually (or dramatically if you hold down **[shift]** while applying) brings in coloured fringes, as shown here.



3a You can produce similar clouds to the standard *Photoshop* variety using default settings in Jeff Mock's *SyntheticTexture* plug-in (on MACFORMAT 27's Cover CD). Apply soft washes of colour using a Colourising brush, or with a *Paint Alchemy* or *KPT Texture*, or with various applications to the R, G, and B channels with a Levels filter, or as here with *KPT Convolver*. Try selecting random areas with 30 or 40 pixel feathering.

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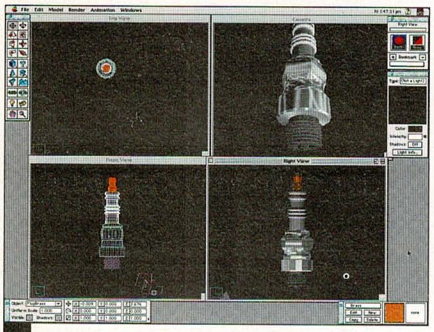
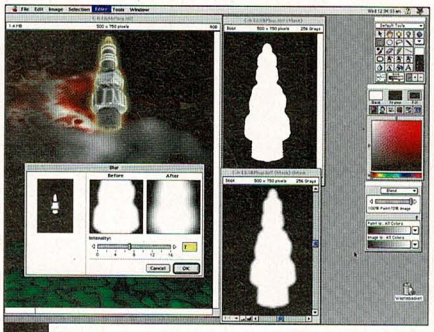
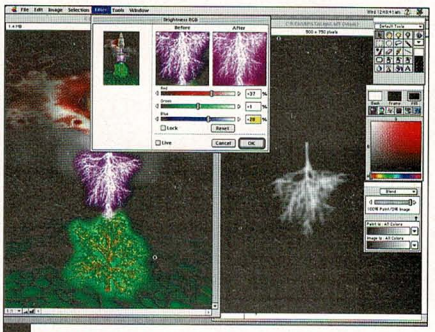
PRODUCING 'GOD'S PLUG-IN'



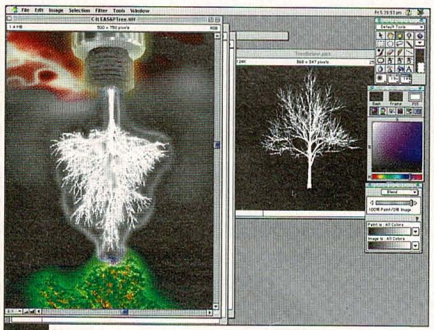
4 This spark plug was modelled and rendered in *Infini-D 3.1*, then saved together with an alpha channel mask so that it could be placed cleanly into this image. Glow effects around objects such as this can be produced in a variety of ways, but the easiest is to use a soft-edged Lighten or Dodge brush around the edges of the spark plug, with its selection area or mask inverted.



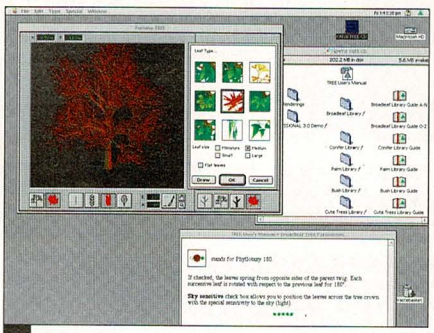
4a You could 'airbrush' a similar spark plug using the techniques in last issue's masking tutorial. A more controlled way to create the glow effect is to save the outline selection to another channel/document, and blur it. Make the blurred outline back into a selection, and then use Levels, Curves or Brightness to lighten the area. You then paste the spark plug back in front.



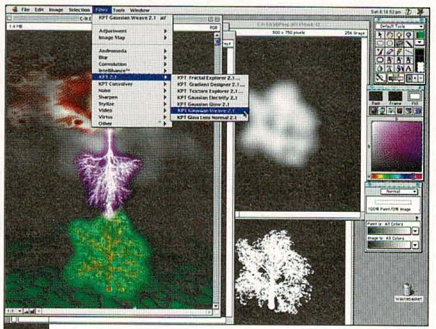
5 The lightning is a copy of a tree, stripped of leaves, viewed from below, then filled with white. The edges were later feathered and the *KPT Gaussian Glow* filter applied. On the main illustration, a Median filter was used to anti-alias the outline, then the Dodge tool to brighten the central 'bolt'. The purple glow results from a blurred selection and an RGB Brightness effect in *Color It!*.



5a Okay, so you've probably had enough of glowing effects by now, but there are two more techniques that you can use to obtain unique results. The *Aldus Gallery Effects* GlowEdge filter produces a curious moving light effect along all the selected edges (a derivation of Find Edges). You can produce another strange-looking glow around an object using *Color It!'s* Kernel brush tool set to Laplacian mode.

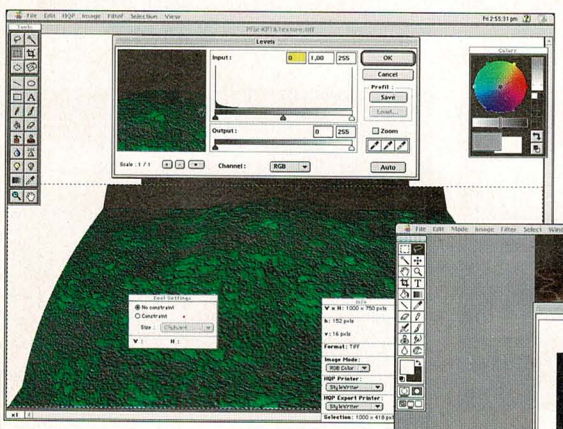


6 The tree is rendered with Onyx Computing's excellent *Tree Professional*, which enables you to accurately create almost every known species of tree (and many unknown ones) in 3D, then view them from any angle – in this case from above. The trees can be shown with or without leaves, and every aspect of their form can be modified – even the way they grow when in close proximity.

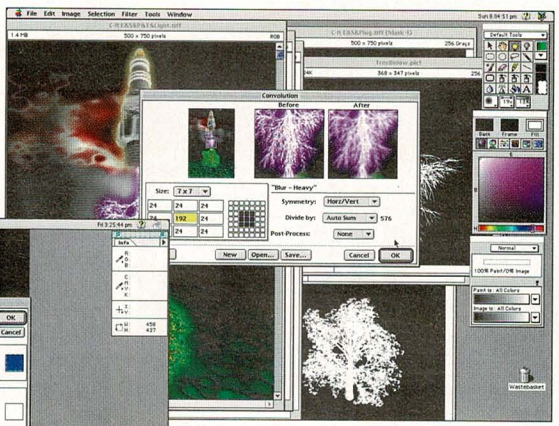


6a Any 3D or 2D object could have been 'illuminated' – a frog, a sofa, even a picture of our editor – but we chose a tree. The final glow type to be mentioned here (honest!) is the one we used for the whole tree – *KPT's Gaussian Weave*, which is the type of effect that traditional photographers achieve by smearing petroleum jelly on their camera lens. *KPT's* version is much less messy.

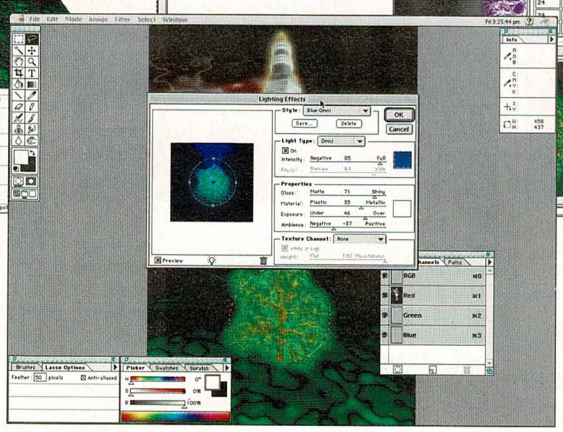
THE RIGHT TOOL FOR THE JOB...



PhotoFix 3.0 now provides an invaluable Levels dialogue – hardly revolutionary, but vital for proper colour balance and image control.



Providing a preview box of your experiments on an image, *Color It!'s* use of Convolution is outshone only by *KPT Convolver.*



Color It!, PhotoFix and *Photoshop* can give you access to the same plug-in filters, but there are differences in their interfaces and approaches.

One of the exceptional special tools showing the real class of *Photoshop* is Lighting Effects. Using this filter your image appears to be illuminated from outside.

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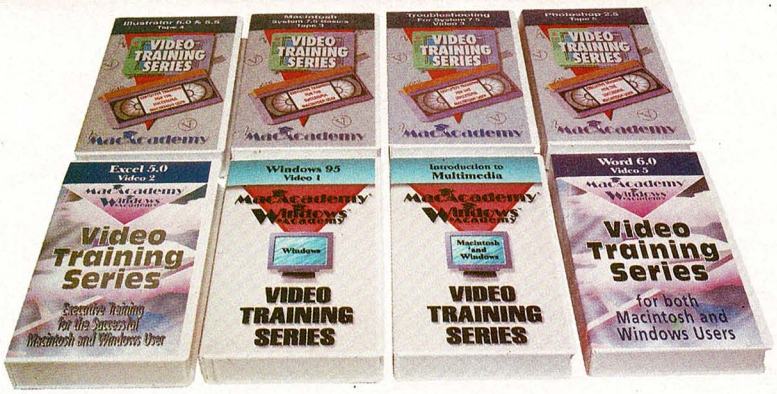

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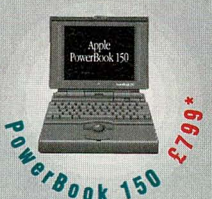

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Reality Bytes

Virtual reality for everyone is a so far elusive goal, but new technology from Apple brings the dream closer. Richard Hill examines QuickTime VR from every angle.

Fasten your seatbelt – we're about to take a trip. Over the next four pages, we'll give you a new perspective on familiar sights, and show you places you've never been before. And you won't have to get up once, because we're using virtual reality.

QuickTime VR, or QTVR for short, is a new system from Apple that's set to make a huge impression in multimedia and other areas of the computer industry, because it makes affordable virtual reality possible. Virtual reality is a computer-made world that swallows you whole. You can perceive depth and move around the imaginary world as you would in the real one. It's like you're looking at a new world out of a helmet; so you can only see in front of you.

You can see other parts of the 'world' by doing the Mac equivalent of moving your head: you use your mouse to turn to the left or right, and in some circumstances you can move to a different part of the environment. It's an example of an idea known as surrogate travel: you can't actually make the journey, but you can get an idea of what it's like.

Surrogate travel isn't new to computers. William Donelson was a student at the world-renowned Massachusetts Institute of Technology (MIT) during the 1970s, and saw some of the first steps taken towards the goal. He recalls, 'The first fella ever to do it was a young undergraduate named Peter Clay, and he actually took pictures around the halls at MIT.

'We were in a group that is now called the Media Lab. Everybody had ideas together and somebody would say, "Yeah, I'll try it." And he would go off and run with it. There was little ascribing of authorship to particular ideas. It was very free-flowing – a fantastic place to work.'

By 1985 the basic ideas explored at MIT were being put into practice in industries across the world. Donelson, for example, had become a partner in the company Visual Data Systems. 'We were using surrogate travel technology to provide training systems for the North Sea oil industry. You'd have these guys go out to the oil platform, and a lot of them have never been on one. It's very dangerous for the first two weeks while they learn their way around. With this system they could actually explore the platform while sitting safely in their office.

'We also did a recruiting system for the Royal Navy, taking you around a destroyer. It's just about to go into its third evolution. We're filming it again, this time for CD-ROM.' Donelson, now the technical director for the Armchair-Travel Company, is working on a number of projects using QTVR.

How to create a world

The process behind QuickTime VR is simple to describe, but complex calculations lie just beneath the surface. You take photographs using a standard 35mm camera, basically standing on the spot and turning in a circle to snap

REALITY, BUT NOT AS WE KNOW IT...

The *Star Trek Interactive Technical Manual* uses QuickTime VR to give you a guided tour of the Starship Enterprise. See MACFORMAT 20 for a full review.

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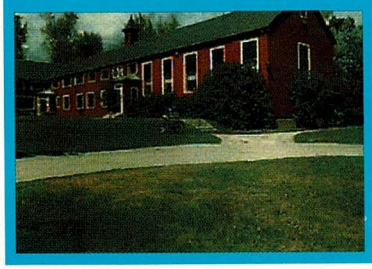
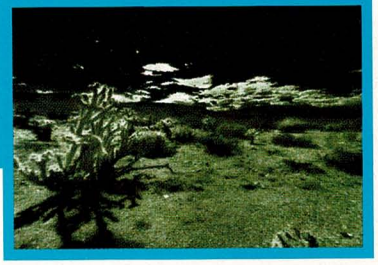
THROUGH THE KEYHOLE



QuickTime VR can take you outdoors or in, and show you places that don't even exist. The outside of Bennington College definitely does exist.

You can enter the Bennington College building and stroll down corridors, taking a leisurely look around and getting the feel of the place.



Behind one of the doors inside the college you can find a virtual gallery created on the Mac. This picture's by Zoë Poledouris.

everything you see. After you've scanned these into your Mac, you can use the pictures in Apple's *QuickTime VR Development Kit*. This then blends your pictures into a panorama – a complete 360-degree view. The work is done by a feature of the Kit called the Stitcher.

William Donelson has experience of using previous systems, and says the Stitcher is what makes this one stand out. 'The main thing Apple have done with QuickTime VR is provide a system where you have to capture significantly fewer pictures than before. We'd shoot 72 pictures to create a panorama in 360 degrees. We'd take a middle strip out of each picture and piece those together, which would take about four or five hours. With QTVR, you can shoot as few as 12 pictures and the Apple software will stitch these together in three or four minutes. Ninety percent of getting a good QTVR experience is in knowing how to do the filming properly. Only 10% of it is actually in the software. The nice thing about QuickTime VR is that it offers you the option of straightening the distorted images out. Lines will be curved as the perspective changes between pictures, so the ability to straighten out lines gives you a nicer experience.'

Maris Multimedia have an ambitious history reference CD-ROM in the works, including this VR tour of an Egyptian tomb.

You don't have to use real life as your source. David Palermo is a Systems Engineer at Apple Computer: 'I'm also a photographer and digital artist in what little free time I have.' He creates his VR views using the 3D rendering program *KPT Bryce*.

'*Bryce* has this cool little button on the Render palette, which automatically renders a 360-degree panorama file, thus eliminating the stitching process in the QuickTime VR Kit. The camera in *Bryce* will "photograph" a scene in 360 degrees, so make sure you have some interesting mountains and stuff all around your scene.

'Since *Bryce* makes a PICT file [a popular type of graphics format] and the *Developer Kit* needs a PICT file to use for the movie, it is very simple to pass a *Bryce* file to QuickTime VR.'

Once you have produced your panoramas, you can combine them to create a virtual guided tour of an environment. Bennington College, situated in leafy Vermont in the United States, have a CD-ROM that gives prospective students an impression of the campus. Blaine Graboyes is part of Ionic laboratories, the group of students and graduates that made the disc. They treated each panorama as a node – a point on the tour you can visit: 'We photographed 20 sites and created five other nodes in *Photoshop* to create a virtual gallery of students' artwork. These individual nodes were linked together using Apple's *Scene Editor* software to create a final scene, which allows the user to move between each of these nodes and creates the illusion of continuous movement.'

VR in the real world

What can QuickTime VR achieve for you? Nick Maris heads Maris Multimedia, who are working on several multimedia reference CD-ROMs using QTVR. 'It's the first step on the long road to putting the user "there". The

The Armchair-Travel Company created this QuickTime VR clip of Piccadilly Circus, which you can view with QTVR on our CD-ROM. When your mouse cursor changes to a broad white arrow, you've found a 'hotspot'. Just click to move to another scene. There are places where moving objects blur away into nothing: this is because the clip was made with several still photographs.

ultimate target must be that you can't distinguish between virtual reality and reality. Whether we'll ever reach that point I don't know, but it's a clear goal and it gives you wonderful opportunities. You can transcend barriers of time and space, but you can also give yourself these wonderful powers of vision – to look into things and see things that no person has ever seen before. I think it's going to be the most fulfilling direction for multimedia to go in.

'But I'm also a believer in the book, and there are some things that cannot be told with VR; where things have to be taught in a linear fashion because you can't get concept C until you've dealt with A and B first. It's absolutely wrong in multimedia to tell the world that kind of knowledge is behind us – it was boring, it was tough and it has no future. If we try and ditch that, we'll lose something valuable.'

One of the projects the firm is working on is a CD-ROM of the ancient world, but Maris has much grander ideas for it than the technology can manage – for now. 'What I'd like to see is... there's a burial ceremony inside the tomb. What are the people wearing? What do they sound like? Could you be one of those people and see that if you're a mourner you behave like this, and if you're a priest you go through particular actions, which have a certain significance?

'Once you put yourself in the shoes of the people that were living it – not merely the eyes of the person in the tomb, but as a participant in what was going on – then you really learn about things in a way that has been impossible for most. I would really like to make the person an active participant.'

Blaine Graboyes also believes QuickTime VR goes at least some of the way towards achieving this: 'The *Viewpoints* CD-ROM we created allows a prospective student to be immersed in Bennington College and to gain a first-hand, intuitive understanding of the physical campus, professors, students and opportunities at Bennington. The total experience provides the viewer with an understanding of what it is like to study, work and live here.'

David Palermo sees many opportunities for the software: 'It will be very useful in entertainment, education, architecture... I created an accurate nine-node QTVR project that gives the

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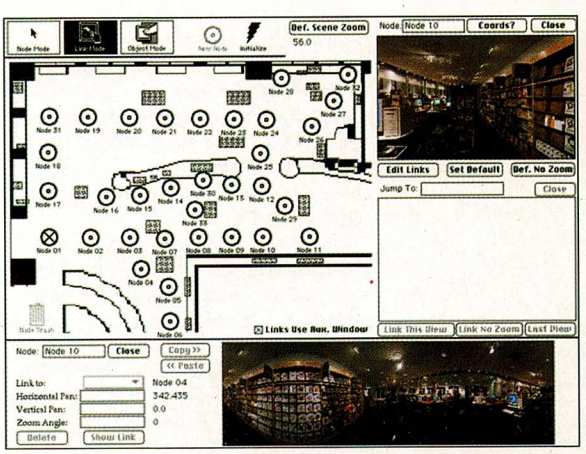


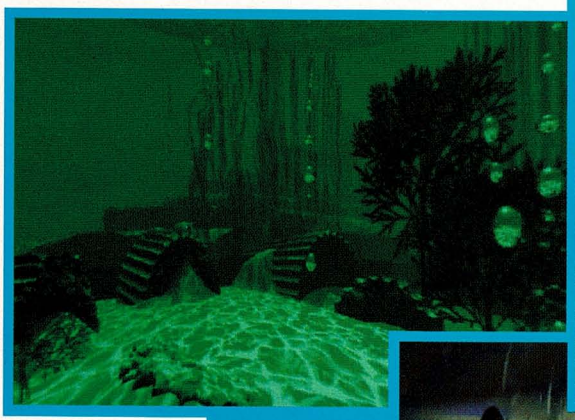
Once you've created your panorama (bottom right of the picture), you can join several together using the *Scene Editor* in the *QuickTime VR Development Kit.*

TRY OUT QUICKTIME VR FOR YOURSELF

We've put the QuickTime VR Player on this issue's Cover CD, along with a choice selection of 11 VR movie clips for you to explore. Apple Computer and the movie authors have given us special permission to do this, so please don't give copies of the software and the clips away or post them on the Internet.

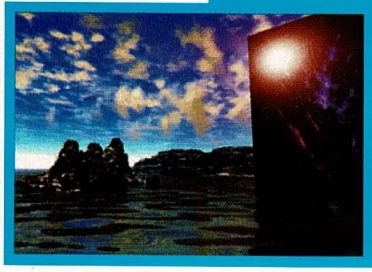
Select **Open** in the **File** menu to start up a movie, then click and hold down your mouse button over the window. Moving it around will spin you around the scene. You can use the **Options** menu to make the screen bigger or smaller, depending on how fast your Mac is. You can also hold down **[option]** and **[control]** to zoom in and out. Some movies have hotspots, which you can use when your mouse cursor changes to a thick white arrow. Click once to move to a new position.

Plunge beneath the sea to see the ruins of Atlantis in the first of three *Bryce* clips made by Chris Casady.



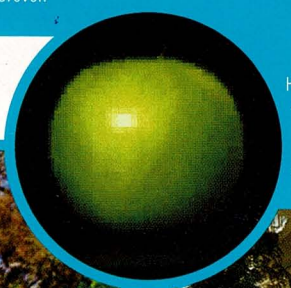
The Armchair-Travel Company show you Piccadilly Circus as you've never seen it before. Click on the hotspots.

Chris Casady also gives you this lovely view of whales playing in the ocean – a moment frozen in time forever.

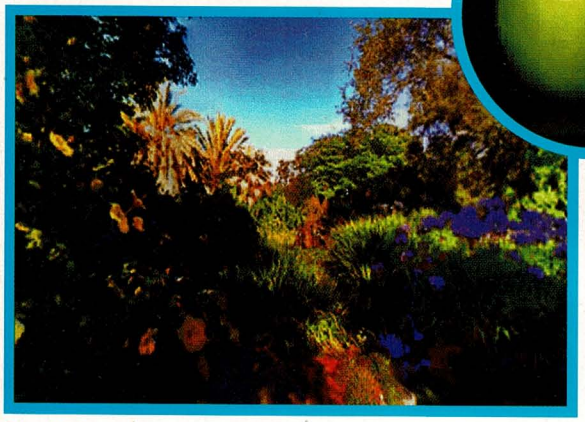


'Butterflies in Bath' is the final clip from Chris Casady – it's almost as if we were looking out the Future Publishing window.

Apple's David Palermo used the 3D landscape program *KPT Bryce* to create this stunning imaginary vista.

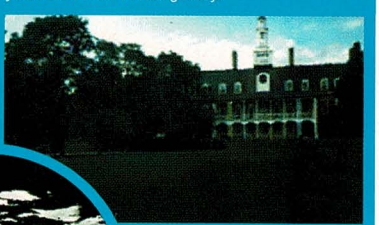


Here's something a little different – an experiment in animation from Fitzgerald and West. Move round and watch what happens to the apple.



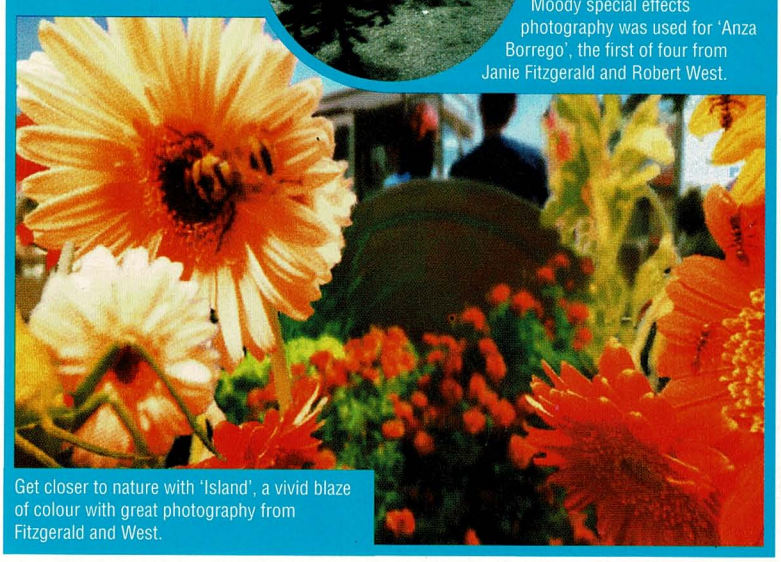
Take a look round a wild garden in bloom. Once you're moving round in it, it's almost a piece of virtual reality psychedelia.

Bennington College contribute a huge tour of their campus. Find your way in and make sure you catch their virtual gallery.



Apple UK offer a tour of their headquarters. There are several places to see, so look out for the hotspot arrow.

Moody special effects photography was used for 'Anza Borrego', the first of four from Janie Fitzgerald and Robert West.



Get closer to nature with 'Island', a vivid blaze of colour with great photography from Fitzgerald and West.

user a perspective of Mars as if he were there. I used NASA data taken by the Viking Spacecraft in 1976, converted it into information that *Bryce* can read and went from there. This whole nine-node project fits onto one floppy disk. Imagine having a CD-ROM that contains the Smithsonian Institute, where you can walk through and pick up objects. NBC also recently used QTVR technology during the OJ Simpson trial, for displaying walk-throughs of the crime scene to show viewers on TV.'

Next year, William Donelson and the Armchair-Travel Company release a CD-ROM set on a Royal Navy destroyer. 'We think the primary interest of QuickTime VR will be for surrogate travel; to visit places that are either too expensive or too dangerous to actually visit. We can do places that people would never be able to visit.' **MF**

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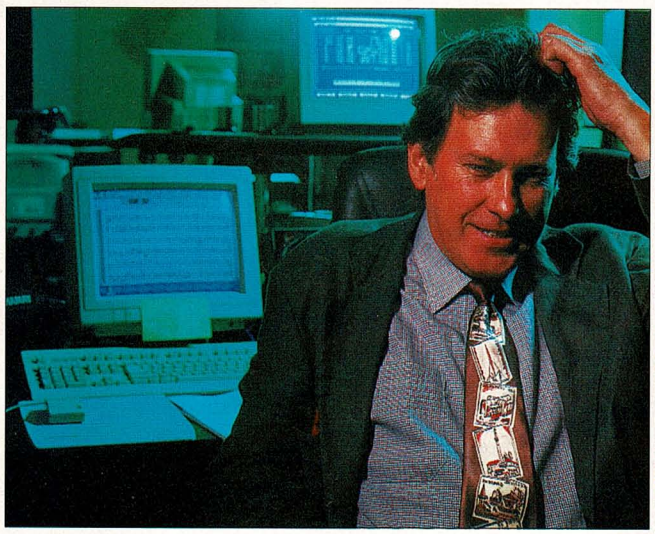
Class Act '95

TV's *Class Act* was virtually a Mac product, with Macs behind both video and music. Bob Dormon and Roxy Music's Andy Mackay talk about composing the music.

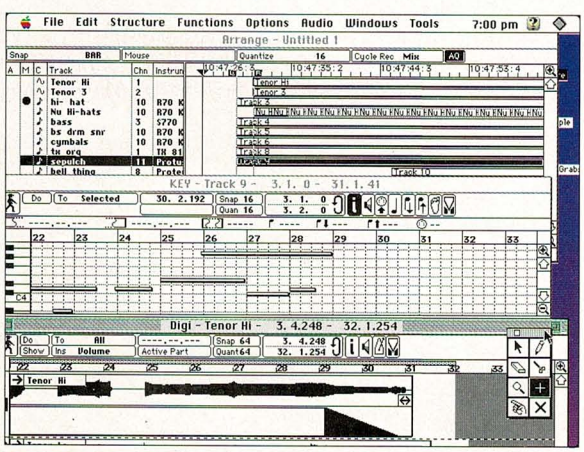


Meet Andy Mackay – Roxy Musician, soloist, and now composer of television theme tunes with the help of a Macintosh IIci.

Andy Mackay is perhaps best known as the saxophonist with Roxy Music. As a soloist, he's written quite a few good tunes himself, including one of pop's all time classics, *Love is the Drug*. Recently he's been applying his talents to music for television.

It's not exactly a new area for him – if you're one of the people who wore flares first time round, you'll remember *Rock Follies*, the '70s glam-dram series. He composed the music for the show for Verity Lambert. Responsible for bringing *Dr Who* to our screens back in 1963, her more recent credits include *GBH*, *Comics* and *Class Act* starring Joanna Lumley. Enter Andy, who composed all the music featured in *Class Act*, with a little help from a Mac, MIDI, some musicians and yours truly.

Unlike his Roxy Music colleagues, Andy never built a massive studio in his home, and only really took the plunge into home recording and sequencing a few years ago. However, he has put together a highly respectable state-of-the-art home studio comprising hard disk and tape based digital audio recorders, with a Mac IIci at the heart of it all.



Cubase Audio can display the edit screens for MIDI and audio simultaneously.

While a Mac for music-making is generally the first choice in the States, until fairly recently it was still considered esoteric over here, where the cheaper, and humbler, Atari ST has won the MIDI marketplace. Andy's decision to choose a Mac as his main music machine dates back to 1989 and a sabbatical from Roxy Music.

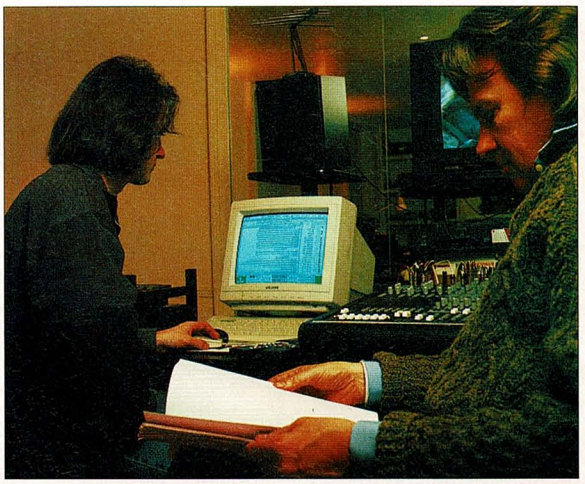
'I was taking a degree in theology,' he recalls. 'I knew nothing about computers – I just wanted to get something to write essays on, and would have probably bought a PC if it hadn't been for a friend introducing me to the Mac. At that time they were expensive, but the educational discount available brought the price down to something more sensible. So I bought an SE30 and used that for four years, but not to do music on.'

Andy also bought a dot-matrix printer... 'A Stylewriter II, the biggest waste of money in the history of computing – it was out of date when I bought it! I must say, back in those days, if you weren't making an order for an office, sales staff could be incredibly snooty and not very helpful either. It was actually very hard to get hold of a Macintosh – you had to find a dealer, make an appointment, then go to some godforsaken part of London to get the equipment, which I found really quite wearing.'

Class Macs

Yet Andy's enthusiasm for the Mac is undiminished – he now has three! His SE30 is now lovingly cared for by his wife Lucinda, and his Powerbook Duo 230 is on permanent loan to his son, Will. Meanwhile, the IIci that came

The ancient synth with the knobs on is Andy's vintage VCS3. Eno used to play it in Roxy Music even though it belonged to Andy, so Eno got the credit as the synth whizz kid! Funny old world...



Bob Dormon (on the left of the picture) is Andy Mackay's sound engineer and music programmer.

Andy records the keyboard part onto hard disk with the help of his sound engineer.

with his initial music technology investment back in 1993 remains at the hub of the studio, which continues to mushroom with new equipment.

With a healthy 20Mb of RAM, this stately Mac is fitted with a Sound Accelerator NuBus card that links up to a Digidesign ProTools audio interface. Up to four channels of audio can be simultaneously recorded onto hard disk, edited and replayed, all with CD quality sound. This hardware all ties in neatly with his *Cubase Audio* software, which enables him to sequence music played from a MIDI keyboard – or even his Yamaha WX-7 wind synth/MIDI controller – and later add real sax or oboe to his composition, with both MIDI and audio working in tandem.

A Mac for music-making is generally the first choice in the States

Unlike Atari STs, Macs (for well-documented legal reasons) never had built-in MIDI interfaces. This fact does, however, broaden the choice for Mac users from 16 MIDI channels to over 500! Andy's MIDI Timepiece II has a sobering 128 MIDI channels, and includes the facility to synchronise his Mac to SMPTE timecode – essential for sound-to-picture composing.

Each episode of *Class Act* was supplied on U-Matic video tapes which not only displayed this timecode on the TV screen, but would have the SMPTE timecode recorded onto one of the stereo audio tracks, with the episode's dialogue on the other. To synchronise to the video tape and record music on the Mac, the video's timecode is fed into the MIDI Timepiece II, which communicates to the Mac using the modem or printer port. All Andy has to do to set up a music cue is look at the timecode (which appears as hours, minutes, seconds and frames on the TV screen) and set a correspondingly appropriate start time in the Synchronisation page of his *Cubase Audio* software. The computer waits until the video playback reaches this point of reference, and then plays from there on locked in sync with the picture.

Need to score

Synchronisation was an essential part of the composition process for the main title theme. Getting a piece of music to fit exactly with images requires a careful choice of tempo and a healthy dose of skill. For the first series, Andy worked to an animated title sequence which was changed at the last moment. 'It was a shame they changed the original titles,' he says, 'as the music worked very well with them. For the new series they've changed again, so I wanted to arrange the music and make it sound a bit classier to suit the new sequence.'

With the *Class Act* theme already established, Andy set about the task of arranging the music for string quartet.

'One of the great things about using computers for music is that you can try out your ideas beforehand. You only have to think about the time and cost that would be involved if you had to score out the quartet parts, then pay a copyist and then, and only then, get to hear all the parts in the studio – when you're up against the clock – and maybe still have to make changes. With MIDI sequencing you can demo your ideas with a half decent sample orchestra and then print out the parts.

'Score printing, I must say, is an area where *Cubase Audio* falters. For sheer accuracy and flexibility, the parts I wrote for the quartet were MIDI-filed from my *Cubase Audio* songs and loaded into *Notator Logic*, where they were polished up prior to printing.'

The exchange of information figured quite highly in Andy's reworking of the *Class Act* theme. He wanted to

Continued on next page

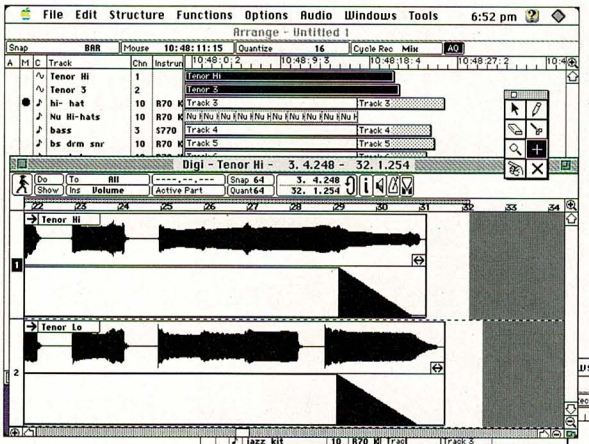
MAC VIDEO EDITING

Class Act is virtually an Apple production. As well as the audio, Mac applications were used on the video side.

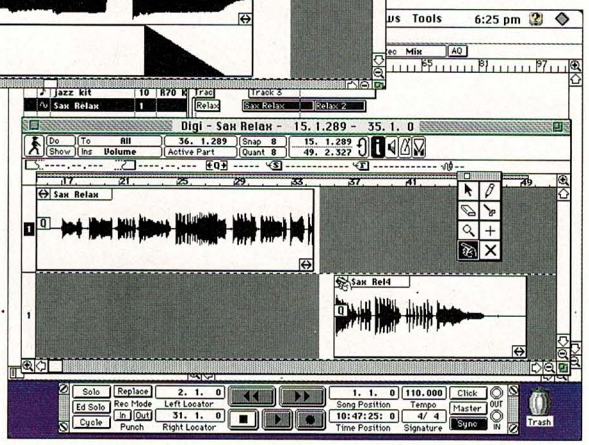
The Avid system used for editing the series is a non-linear video editing system – that is, the footage is digitised and edited on-screen as if it were a scanned still image. This requires serious storage – it uses gigabytes of hard disk space, but enables producers to edit multi-track audio as well as broadcast quality video. There's no need to wait for the tape to rewind, scenes are accessed instantly and can be cut and pasted where required.

To find out more about Mac video editing, take a look at our cover feature in MACFORMAT 21. We also brought you the software to get you started on the Cover Disk that issue. Turn to page 123 if you missed it.

Most of Andy's computing gear is behind the mixer and unfortunately not readily accessible, but we all know what IIci looks like!



The audio of two harmony sax lines could be faded just like MIDI parts. Just the trick during a chase sequence music cue.



Two sections of audio can be trimmed or spliced together seamlessly, for the perfect take in the Audio Edit page.

keep his original sax and oboe recordings and the lead guitar parts played by fellow Roxy Musician Phil Manzanera. All these recordings were transferred from the audio on hard disk to an Alesis ADAT, an 8-track digital recording system based around S-VHS video cassettes. Andy has two ADATs, but his studio was not really suited to record the quartet. Instead, he took the tapes to Phil Manzanera's ADAT equipped Gallery Studios to complete the recording and mixing.

Acting up

In the true tradition of computing, not everything went according to plan. Andy had to live through the nightmare that haunts us all. 'The IIci's hard-drive failed on a Bank Holiday weekend and we had to deliver the music for an episode on the Tuesday! It was a disaster – the Mac would start up normally enough, but eventually get slower and slower so that it would take minutes to open and close windows. It was like walking through quicksand; eventually everything would grind to a halt.'

A brief bout with *Norton Utilities* and an upgrade to System 7.5 appeared to cure things, but not for long. After more diagnostics it appeared that the hard drive had developed cancer and a transplant was desperately needed! In such a tight deadline situation, anything that would get the computer running was acceptable – just name your price. A few manic phone call later, he found someone with a 1Gb drive who was willing to have his holiday weekend disturbed. It saved the day. While a 1Gb drive might seem a little excessive, Andy's resigned to keeping it, just like all his Mac gear.

Mac to the future

'The 1Gb drive is bound to come in handy, especially now my daughter is getting into using art packages. Macs are a great tool for education and there seems little point in selling a Mac – as you'll never get a decent return on your investment, you might as well keep it. I'm due for an upgrade soon and it will be interesting to see how the PowerMac clones turn out. I'll probably change over to *Notator Logic Audio* too, as the score printing is so comprehensive, and the *Cubase Audio 2* upgrade I got didn't even work on the IIci!'

Cubase Audio 2 promised four tracks of audio with EQ – not available on version 1.2. It was only trial and error (and an eventual confession from Steinberg staff) that revealed the update wouldn't work on 'slower' Macs. *Logic Audio*, however, does support the IIci and four tracks of audio. So now *Class Act's* hectic schedule is over, Andy is ready for a change.

'Although the Performas had just come out, I bought the IIci because I knew it worked with the audio software, and there's a lot to be said for a system that works. Now, what was originally "the Mac to have for audio" has prematurely come to a dead end thanks to Steinberg's upgrade strategy, which only suits faster Macs. I do think that making hardware effectively redundant for people who have supported their software is a misguided approach. In the light of this "progress", *Logic Audio* seems a very attractive option.'

There's always a price to pay for progress, none more obvious than in computing, even if some great ideas do come with progress. Like his vintage VCS3 synth, which was an inspiration to greater things, Andy still feels affection for his old SE30. 'The SE30 is fast. It's fast, very neat and cute. One day I'm sure they'll be considered collector's items.' Together with the IIci and Duo 230, no doubt? **MF**

ANDY'S GEAR

Composing the music for an entire TV series takes a pile of Mac gear, but, unlike video editing, it's an affordable pile of gear. This is the Mac kit Andy used.

- Mac IIci, 20Mb of RAM, 1Gb internal hard disk, System 7.5
- Seagate 500MB external hard disk (for audio recording)
- Sound Accelerator Card with Digidesign ProTools 4 channel audio interface
- Box Clever 1.3Gb magneto-optical removable storage backup device
- Apple CD300 CD-ROM drive
- MIDI Interface: Mark of the Unicorn, MIDI Timepiece II, 128 channel MIDI interface and timecode synchroniser

Audio software:

- Steinberg *Cubase Audio 1.2*
- Digidesign *Sound Designer 2*

Tape-based digital audio equipment:

- Two Alesis ADATs (modular 8-track, S-VHS tape system)
- Alesis ADAT BRC (Big Remote Controller) tape transport control and synchroniser
- Alesis AI-1 ADAT, S/PDIF, AES/EBU multi-format digital audio interface and sample rate converter
- Panasonic SV-3700 DAT recorder
- Sony TCD-D3 Portable DAT recorder

There were also MIDI and synthesisers too numerous to mention here.

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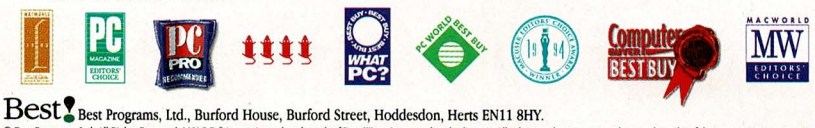

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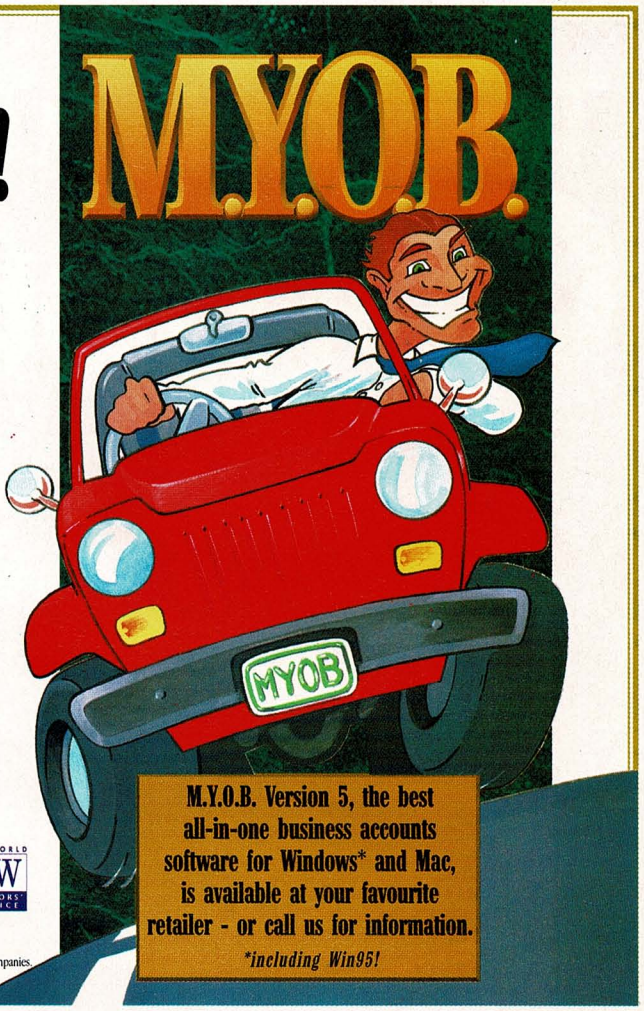

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FTP is easy

FTP is the most common way of transferring files over the Internet, followed closely by Gopher. Clive Parker investigates, in part six of our Net Basics series.

After e-mail, the most common use of the Internet is FTP, or File Transfer Protocol. FTP is the standard method of moving files from one location to another using the Internet, while Gopher is a similar, but older, method of getting files over the Net and works in almost exactly the same way. You don't actually have to understand the mechanics of how FTP and Gopher work to use them; all you need to do is use the software and go get the stuff you need. And, because of the way the Net works, you can get files from anywhere in the world for the cost of a local call to your Internet connection.

Of course, you first have to get onto the Internet, for which you need a modem and an Internet account – see MACFORMAT 28 for more details. Once you've got yourself an account with an Internet provider they supply you with all the software you need to use the Web, e-mail, FTP and Gopher. If you don't like the software you get from your provider, you can get replacement applications from the Net itself or from this issue's MACFORMAT Cover CD, where we've included *Fetch*, *TurboGopher* and *Anarchie*.

How it works

When you use FTP or Gopher to get a file from a distant computer (which is called a remote server) the file is chopped up into chunks of data which are then squirted over the Net to your Mac. Each chunk is given a unique ID number to identify it, so that the file can be reassembled correctly when it arrives. This is important, because the chunks aren't necessarily sent over the Net in the correct order. You don't need to worry about this though – FTP and Gopher programs are smart enough to rebuild files correctly so

The latest versions of *Fetch*, *TurboGopher* and *Anarchie* are on the Cover CD

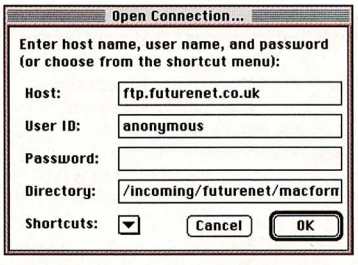
URL? WHAT'S THAT?

Whenever you see URLs mentioned, it just means the address of an Internet site. URL stands for Uniform Resource Locator – different Net addresses have different URLs.

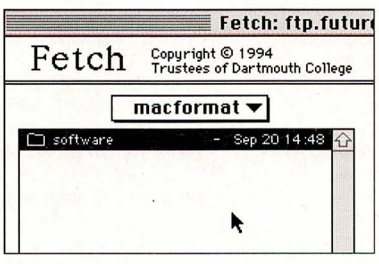
Continued on next page

GETTING FILES WITH *FETCH*

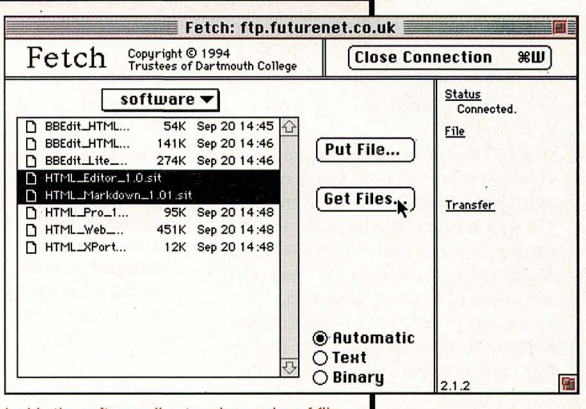
Fetch is just about the best way to download files from FTP sites. If you already have FTP software, you can get the latest version of *Fetch* from **ftp://src.doc.ic.ac.uk/packages/mac-umich/util/comm/** or you can find version 2.1.2 on the MACFORMAT Cover CD this issue.



When you run *Fetch*, the Open Connection box pops up automatically, displaying a default address. To connect to a different site, enter the details of the URL in the Host and Directory boxes. The User ID and Password are taken care of automatically. This is what our sample address looks like in *Fetch*.



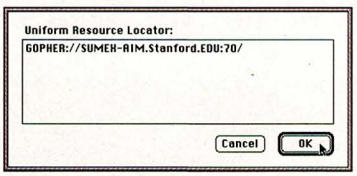
When you connect to the server, *Fetch* displays the contents of the directory in a window on the left. In this case, there's only one item in the macformat directory, another directory called software. To enter the software directory, double-click on it and *Fetch* reads the contents.



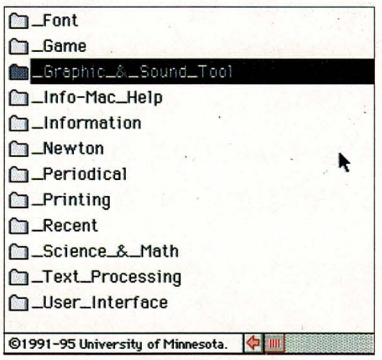
Inside the software directory is a series of files, each marked with its name and size. Highlight files you want by clicking on them once with the mouse. To select more than one file, press the **[shift]** key while clicking on the other files. Now click on the **Get Files** button to download them to your Mac.

Grabbing files with TurboGopher

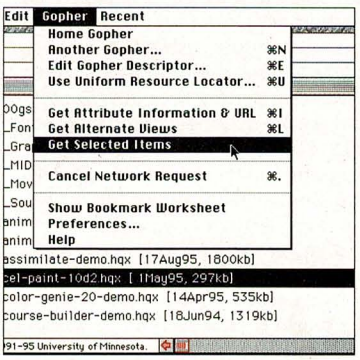
TurboGopher is the standard application for accessing Gopher sites on the Net. You can always get the latest version from **gopher.archive.merit.edu:7055/0/mac/util/comm/gopher/** or you can find version 2.0.1 on this issue's Cover CD.



Select the **Use Uniform Resource Locator** command from the **Gopher** menu, then the URL. The first part of the URL must be written in caps (**GOPHER://**) followed by the rest of the URL. Remember to copy URLs exactly as printed in magazines, because addresses and filenames are case sensitive.



When you connect to a Gopher site using *TurboGopher*, you're presented with an easy-to-use window system to move from directory to directory. For instance, to move into the directory _Graphic_&_Sound_Tool you just double-click on the folder in the window. A new window opens for the new directory.



Once you have entered the directory, you can transfer files from the Gopher site to your Mac. There are two ways of doing this in *TurboGopher*. You can highlight a file and use the **Get Selected Items** command from the **Gopher** menu, or you can double-click on the file – which is by far the easier method.

Previously in MacFormat

Our series on the Internet began in MacFormat 27 with an introduction to the Net and a focus on the World Wide Web. In succeeding issues, we've looked at what you need to get connected, how to use e-mail, how to create your own Web pages, and Usenet. In issue 27 we also brought you a World Wide Web roadmap – a giant foldout guide to the most exciting and fastest growing part of the Internet. If you missed any of these, turn to page 123.

that you don't have to laboriously stick files back together yourself.

If you've heard of 'anonymous FTP' and that's confused you further, be confused no more. Anonymous FTP is just another way of saying FTP, but it's called anonymous FTP because of the way FTP sites work. When you connect to an FTP site it asks your Mac for a user name so you can be logged into the system. Your FTP software sends the name **anonymous** as the user name. The site then asks you for a password and your software sends your e-mail address. The system then allows you to look at the files on the site. You don't have to worry about user names and passwords every time you connect to an FTP site – you simply enter the information into the preferences of the application you are using and it does it all for you.

What use is it to me?

The Internet is the biggest Macintosh software archive in the world. All the freeware and shareware software you'll ever need is out there for the taking – all you have to do is connect to an FTP or Gopher site and download it to your Mac.

You probably get all the software you want from the MacFormat CD-ROM, but the great thing about using FTP is that you can get the latest versions and updates to software as soon as they're available on the Net. And not just freeware stuff. Most Mac software developers make updates and upgrades available free on their FTP and Gopher sites. So, if you want to upgrade your version of the Mac OS you can just download it from the Apple site. And you can get demo versions of applications to try out before you buy, so you don't need to spend £150 on something before you find out it's not what you want. **MF**

FutureNet

You can find all of Future Publishing's magazines, including MacFormat, *.net: the Internet Magazine* and even *Total Guitar*, as well as much more, on our own Internet site, FutureNet. To find out more, turn to page 14.

Useful FTP and Gopher sites

There's loads of software and information out on the Net just waiting for you to go and get it. Try some of these addresses using *Fetch* and *TurboGopher*.

FTP sites	
Apple Corp	ftp.apple.com
Imperial College Mac Archive	src.doc.ic.ac.uk/packages/mac-umich/
MacFormat	ftp.futurenet.co.uk/incoming/futurenet/macformat/

Gopher sites	
Imperial College	src.doc.ic.ac.uk:70/1/
JANET News Machine	news.janet.ac.uk:70/1/
University of Michigan	gopher.archive.merit.edu:7055/0/mac/
University of Minnesota	gopher.tc.umn.edu:70

FTP and Gopher addresses (URLs) explained

Both FTP and Gopher URLs are constructed in exactly the same way, with just a single small difference. Gopher URLs sometimes have spaces in them while FTP URLs normally use underscores (_) dashes (-) or points (.) instead of spaces.

So, a typical FTP (or Gopher) site address looks like this – just replace **ftp** with **gopher** for a Gopher site.

The first part of the address is the server name. The **ftp** indicates that it's an FTP site while the rest of the address is made up of the usual three levels of the domain name. **futurenet.co.uk** breaks down as organisation (**futurenet**), organisation type (**co**) and country code (**uk**).

The rest of the address simply comprises the directory path and the filename. The path in the example is **/incoming/futurenet/macformat/** while the filename is **filename.txt**.

Just to be awkward, some FTP and Gopher sites don't use **ftp** or **gopher** as part of the server name. So, the FutureNet FTP server name could just as easily be **futurenet.co.uk** rather than being **ftp.futurenet.co.uk**.

Finally, you can use *Netscape Navigator* (and other Web browsers) to access FTP and Gopher sites. To get to the example address here using Netscape you just insert **ftp://** or **gopher://** at the start of the URL. It's as simple as that.

ftp.futurenet.co.uk/incoming/futurenet/macformat/filename.txt

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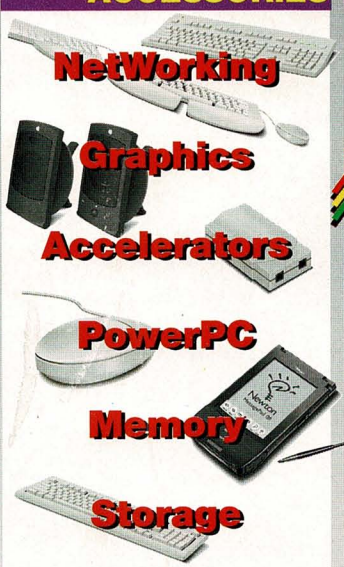

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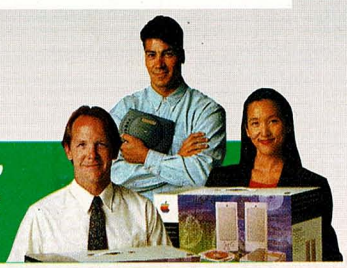

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Follow the script

Since version 2.2, *HyperCard* has enabled you to develop and run AppleScript scripts. Rod Lawton uses it to search entire folders full of documents.

AppleScript is Apple's attempt to produce a universal scripting language – one that can automate and orchestrate the activities of many different Macintosh applications. An AppleScript routine, for example, could take a whole list of *MacPaint* files, launch a Mac graphics program, convert them all into PICTs and save them into a new folder in a different location. AppleScript is supported by the latest versions of most leading software, enabling you to automate most of their functions using scripts written either by end users or by software developers.

In System 7.5, AppleScript can control the Finder. This means you could write (or record) a script that identifies all files on your hard drive that have been modified in the past week and backs them up in a separate folder.

Since version 2.2, the *HyperCard* scripting window has included a pull-down menu offering you a choice of scripting language – HyperTalk and AppleScript. Most *HyperCard* users will stick to HyperTalk, but AppleScript is indispensable for when you need to interact with the Mac's Finder on a more basic level. AppleScript also gives *HyperCard* some fascinating potential as an interface for driving other Mac software, but that's another story.

HyperCard is quick at loading external files and checking their contents, as we saw in MACFORMAT 30, when we developed a stack that searched files for chosen words or phrases in seconds (turn to page 123 if you missed it). However, although *HyperCard* has commands to choose files to inspect and read them, it can't load files automatically. There are no commands to read all the files in a folder, for example. Instead, you have to individually identify the files you want to load. Given the speed at which *HyperCard* can scan files, the ability to load many files automatically would be excellent.

HyperTalk can't do this, but AppleScript can. You can use it to compile a list of all the files in a folder, so that *HyperCard* can load each one and examine it for the word or phrase you're looking for. What *HyperCard* can't do is get a list of filenames (actually, you need the whole pathname) into a field on a card, which is the task for AppleScript. You can then use a simple repeat loop in HyperTalk to load each one in turn to check the contents. See the 'Get on with it!' panel for the script and explanation.

Dead easy, eh?

As you can see from the script, AppleScript is not unlike HyperTalk. The syntax is different, but the control structures and basic principles are similar. It isn't the most efficient piece of AppleScript code ever written, but it's reasonably easy to follow if you're used to HyperTalk, and it does the job.

Our script can extract the names of all the documents in a folder, even those hidden within several layers of sub-folders. All these filenames are stored in a card field, so now all you need is a HyperTalk script that can

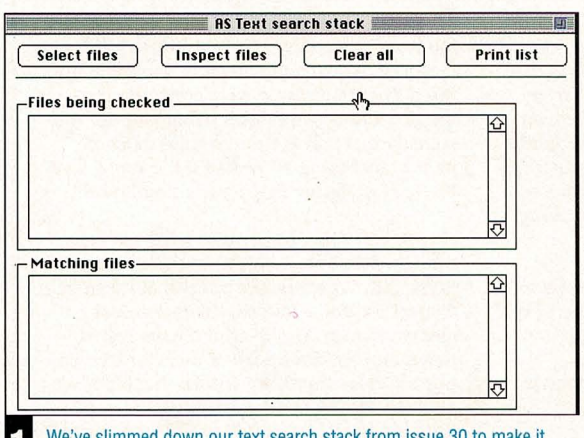
Continued on next page

LOGICAL DEVELOPMENTS

You could add a script to the field containing the search results so that clicking on a filename loaded the file with the application of your choice.

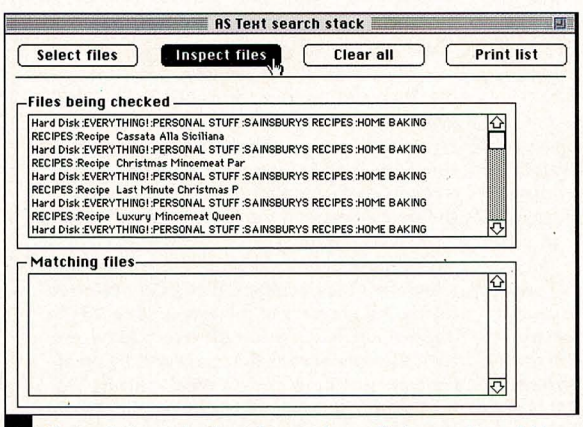
RECORD YOUR ACTIONS

If you have System 7.5, you can record sequences of actions in the Finder using the AppleScript Script Editor (look in the Apple Extras folder for AppleScript Utilities). Look out for more AppleScript coverage in MACFORMAT in the coming months.

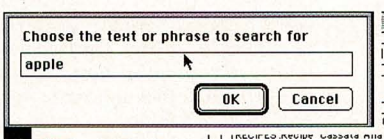


1 We've slimmed down our text search stack from issue 30 to make it simpler to follow and because some of the features are now redundant.

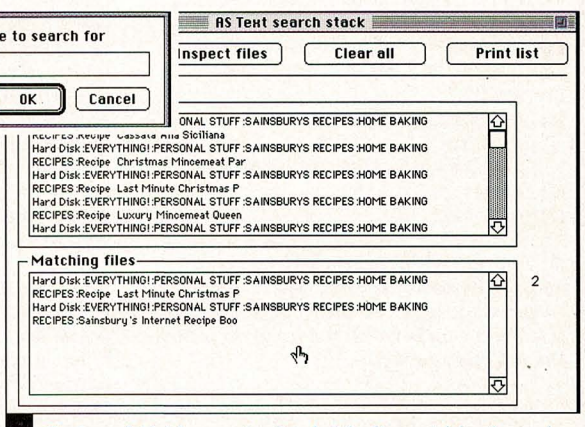
2 When you click on **Select Files**, AppleScript presents a **Choose folder** dialogue. This script loads files from nested sub-folders too.



3 The top field contains the pathname of every file in your chosen folder and all the folders within it. Press **Inspect Files** to examine them.



4 We're now back with a HyperTalk script, and we get the familiar **Ask** dialogue, which prompts you for the word or phrase to search for.


AS Text search stack
Inspect files
Clear all
Print list
Hard Disk:EVERYTHING!:PERSONAL STUFF:SAINSBURYS RECIPES:HOME BAKING
RECIPES:Recipe Christmas Mincemeat Par
Hard Disk:EVERYTHING!:PERSONAL STUFF:SAINSBURYS RECIPES:HOME BAKING
RECIPES:Recipe Last Minute Christmas P
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RECIPES:Recipe Luxury Mincemeat Queen
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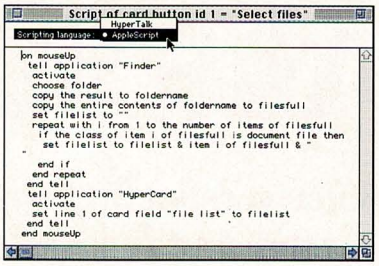
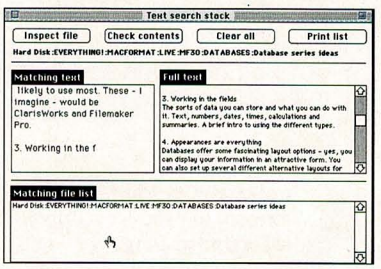
Matching files
Hard Disk:EVERYTHING!:PERSONAL STUFF:SAINSBURYS RECIPES:HOME BAKING
RECIPES:Recipe Last Minute Christmas P
Hard Disk:EVERYTHING!:PERSONAL STUFF:SAINSBURYS RECIPES:HOME BAKING
RECIPES:Sainsbury's Internet Recipe Boo

5 The lower field duly presents a list of all the files containing the word or phrase you were looking for.

Most leading Macintosh applications now support AppleScript, Apple's universal scripting language. Experienced programmers can make the software carry out many tasks automatically.


Script of card button id 1 = "Select files"
HyperTalk
Scripting language: AppleScript
on mouseUp
tell application "Finder"
activate
choose folder
copy the result to foldername
copy the entire contents of foldername to filesfull
set filelist to ""
repeat with i from 1 to the number of items of filesfull
if the class of item i of filesfull is document file then
set filelist to filelist & item i of filesfull & "
"
end if
end repeat
end tell
tell application "HyperCard"
activate
set line 1 of card field "file list" to filelist
end tell
end mouseUp

Ever since *HyperCard 2*, users have been able to write scripts in HyperTalk or AppleScript via this pop-down menu in the scripting window. The languages are similar but have different strengths.



Two issues ago we developed a stack that could load any file and check it for a specific word or phrase. This issue we've added AppleScript script that enables it to handle whole batches of files.

WEIRD SYMBOL

The symbol '¬' in the scripts on these pages means that the text should run as one continuous line.

BE CAREFUL!

AppleScript is a powerful programming language that can rename, move and delete files without warning if you code it carelessly. There's nothing in this issue's stack to cause problems, but if you start playing about with other AppleScript commands – beware!

automate the searching procedure:

```
on mouseup
   put empty into card field "check ¬
   contents"
   ask "Choose the text or phrase to ¬
   search for"
   put it into searchstring
   repeat with i = 1 to the number of lines ¬
   in card field "file list"
      loadfile i, searchstring
   end repeat
   put the number of lines in card field ¬
   "check contents" into card field ¬
   "correct files"
   play harpsichord c7
end mouseup

on loadfile i, searchstring
   put empty into openfile
   open file line i of card field "file list"
   repeat until it is empty
      read from file line i of card field "file ¬
      list" for 1600
      put it after openfile
   end repeat
   close file line i of card field "file list"
   if searchstring is in openfile then
      put line i of card field "file list" & ¬
      return after card field "check ¬
      contents"
   else
   end if
end loadfile
```

This script is in two parts. The main handler simply prompts you for the word or phrase you want to search for, then runs through each of the filenames on the list you created using AppleScript, calling up the loadfile subroutine each time. This subroutine opens the file, reads it into the variable openfile and then checks to see if the file contains the text you're looking for. If it does, that filename is added to the list in the check contents field.

This stack is more powerful than the one we created in issue 30, in that it can search multiple files at once. The AppleScript routine, though, is less than efficient – *HyperCard* can scan the files for matching text faster than AppleScript assembles the filenames in the first place. If any AppleScript codeheads out there can spot a quicker solution, do let us know. **MF**

GET ON WITH IT!

HyperCard can search files for chosen words or phrases, but it can't automatically load a folder full of files to conduct the search on. So we're going to use AppleScript to compile a list of all the files in a folder. Here's the script, with an explanation of how each line works:

```
(1) on mouseUp
(2)   tell application "Finder"
(3)      activate
(4)      choose folder
(5)      copy the result to foldername
(6)      copy the entire contents of foldername to ¬
         filesfull
(7)      set filelist to ""
(7)      repeat with i from 1 to the number of items ¬
         of filesfull
(7)         if the class of item i of filesfull is ¬
            document file then
(7)            set filelist to filelist & item i of filesfull & "
(7)            "
(7)         end if
(7)      end repeat
(2)   end tell
(2)   tell application "HyperCard"
         activate
         set line 1 of card field "file list" to filelist
(2)   end tell
(1) end mouseUp
```

(1) To begin with, the AppleScript script needs to be activated by the familiar mouseup HyperTalk handler. So the AppleScript part is actually the bit between the script **on mouseUp** and **end mouseUp**.

(2) In AppleScript, commands are directed at applications, or 'objects' created by that application. The first thing you do is identify where you're directing the commands that follow. In this script, we're going to get the Mac's Finder to do something, then we're going to get *HyperCard* to carry out the next phase. Just as HyperTalk routines are sandwiched between a pair of handlers (such as **on mouseup** and **end mouseup**), AppleScript routines are sandwiched between tell statements: **tell** and **end tell.**

(3) The **activate** command is equivalent to bringing the named application to the foreground. AppleScript often controls several applications running at once, and this command specifies which one you want to become active.

(4) The AppleScript **choose folder** command is similar to HyperTalk's **answer file.** It generates a dialogue where you can select a folder (rather than a file). Once you've selected a folder, you can do all sorts of useful things – this is because in AppleScript one of the properties of a folder is a list of all its contents. Not just the items within it, but also all the items within folders within it, which is exactly the sort of information we need if we want to check all the files within a folder or volume for our chosen text.

(5) Where HyperTalk copies filenames to the variable 'it' if you use the **answer file** command, AppleScript uses the variable **result** – different name, same thing. Here, we're transferring the result to the variable **foldername.** The AppleScript **copy... to...** command is equivalent to HyperTalk's **put... into...**

(6) So far we've saved the name of the folder we want to examine. Now we want a list of the folder's contents, which is what this line does. The statement **entire contents** is one of the properties of a folder. When you use this statement, AppleScript provides a list of names, including all nested folders and files. We're storing this in the variable **filesfull.**

(7) We still don't have quite what we want, though. What we have currently is an AppleScript list, which is like a series of items in a HyperTalk line – indeed, the individual elements in an AppleScript list are called items. But we have a list of files, folders, applications – everything within the folder we selected, not just document files. We need to filter out the document files and store them in a separate list. AppleScript can differentiate between document files, applications and folders – they each belong to a different 'class'. So we can go through the items one by one, checking each to see if it's a document file, then adding it to a variable filelist. The syntax isn't so very different from a similar HyperTalk routine. (The double-quote on a line of its own is there because we're adding a return character after each filename, hence the return between the double-quote marks.)

(8) We now have a variable (filelist), which is a list of all the document files in our selected folder. All we have to do now is store this in a *HyperCard* field. (Adding a return between each filename means that each will be on a separate line in the field.) We do this by activating *HyperCard*, then putting the variable filelist into a card field for *HyperCard* to search.

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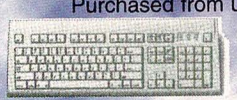

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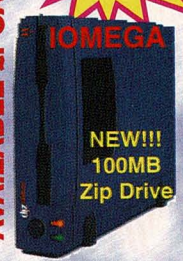

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MAC ANSWERS

Got a problem? Can't open that file? Can't print without jaggies? Get in touch with the MACFORMAT experts and put a smile on the face of your Mac...

Welcome to MacAnswers, the section of MACFORMAT for solving your problems. Well, your Mac problems anyway – we don't do plumbing or woodwork, and waste disposal is right out. This month's experts are Lindsay Bruce and, er, Lindsay Bruce. (He was cheap, okay?) If you have a query, fill in the form on page 78 and send it in, or e-mail us on **macformat@futurenet.co.uk** including full details of your Mac, and 'MacAnswers' in the subject title. Sorry, we can't answer your questions over the phone, 'cos we're all busy taking metalwork classes.

QuickTime woes

EXTENSIONS

Q *Each time I start up my Mac, I get a dialogue box saying: 'QuickTime installation has failed because it was already installed.' How can I get rid of this?*
Dr EC Bray
High Wycombe, Bucks

A What you've got here is a duplicated Extension. Your Mac loads all the Extensions and Control Panels installed in the System Folder in alphabetical order. If it comes across a previously loaded Extension under a different name, your Mac ignores the duplicate. What the dialogue box is trying to tell you, in its own charming way, is that you can't load the same Extension twice. To solve this problem, open the Extensions folder inside the System Folder and locate the QuickTime Extension. Now have a look about the Extensions folder for any extension which has an identical icon, but a different name (the QuickTime Powerplug Extension for PowerMacs has the same icon, but this shouldn't be installed on your 630 anyway). Drag this duplicate to the Wastebasket and restart.

Dark Escape

SOFTWARE

Q *The* Escape *game on* MACFORMAT *Cover Disk 29 seems to conflict with* After Dark 3.0. *With* Escape *installed and opened on my Mac,* After Dark *runs extremely slowly. The only way to overcome this is to trash* Escape *and then reinstall* After Dark. *What's going on?*
B McDowell
Millisle, Co Down

A Games need to get colour graphics onto the screen quickly, and the standard QuickDraw routines in the Mac OS often aren't fast enough. So most games programmers use their own custom routines, which usually clash with most things on your Mac.

This is one reason why most games discourage the practice of running other applications in the background, the other reason being that games need as much processor power as they can lay their grubby little hands on. *After Dark* often has such problems and there's no easy way round it, because the screen drawing technique differs wildly from one game to another.

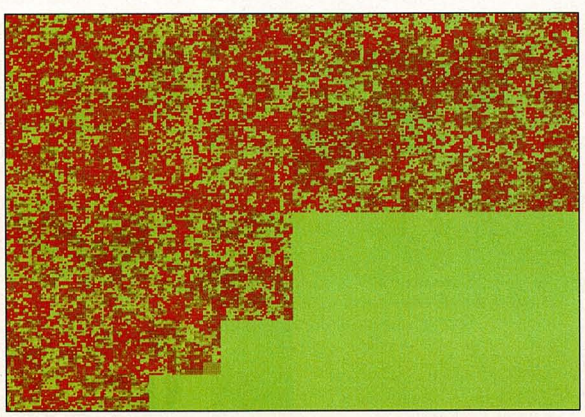
However, *After Dark* does have an exception function which disables the screen saver when certain programs are running. If this doesn't work, try a screen saver that runs in the background as an application, like *ScreenPlasma 1.2* – on issue 30's Cover CD.

System from Hell

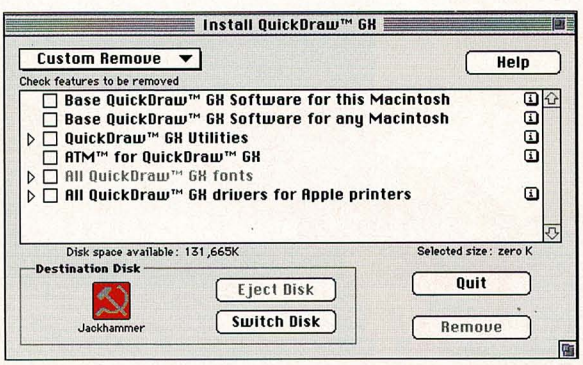
SYSTEM SOFTWARE

Q *1. I have an LC475 (System 6) at work and a Performa 630 8/250 (System 7) at home. I have frequently used the same floppies in both machines, but one I was using recently (which was formatted a couple of years ago on a Classic II) caused the LC475 to virtually grind to a halt when I opened a* MacWrite *file from the Performa. Was this caused by a clash between System 7 and System 6? When I took the disk home, it then had the same effect on my Performa. Can the floppy be reformatted without losing the files on it?*
2. In similar circumstances I often get the message: 'This document uses fonts not installed in your system file (possibly Palatino)'. It then opens the file with everything converted to Chicago (my least favourite font), and I have to Select All and convert it back into Palatino, which was there all the time. What causes this?
3. I have an old ImageWriter and had no problems printing with my new Performa 630 setup. Recently, however, I installed the QuickDraw GX application that had been sitting on my hard disk in the Apple Extras folder to see what it was all about. Since then I have had nothing but trouble when printing. I have just tried to Print Desktop, and the system froze when the ImageWriter GX dialogue box came up and I clicked Print. I am now stuck with an ImageWriter GX logo on my Desktop and have been having problems with changing margins and unprinted documents piling up in a queue. How can I uninstall it? And what

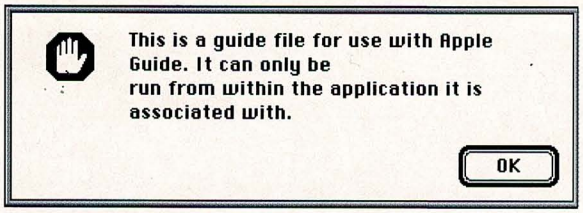
Continued on next page



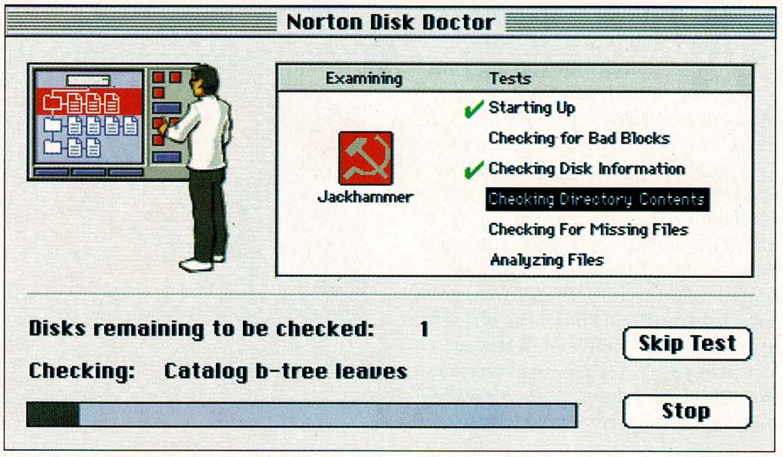
Screen savers that run as applications, such as *ScreenPlasma*, are less likely to clash with other software. See 'Dark Escape'.



QuickDraw GX adds some great new features which nobody supports yet. So you may as well uninstall it. See 'System from Hell'.



Unfortunately, you can't open Macintosh Guide by just double-clicking on it, you must have the Apple Guide Extension installed. See 'Lost Guide'.



Disk fixing packages such as *Norton Utilities* (right), or *MacTools*, can get lost files back. See 'Back Me Up'.

exactly is the whole 'GX' thing?
4. My folder and Wastebasket icons have changed in style recently and have taken on a 'shiny' appearance. My son denies having done it. How did it happen? How do I get back the old ones?
Paul Clark
Brighton, Sussex

A1. System 6 and System 7 use different methods of keeping track of files on disks. What's happening here is that System 7 is having to rebuild the Desktop files for the floppy before you see it appear on the Desktop, and because floppy disks are just about the slowest storage medium known to mankind, this can take a while. You can't format a floppy disk without losing the files stored on it, but you can fix the problem quite easily. You need to install the Desktop Manager INIT on your System 6 Mac. This will not only speed up file access on your Mac, but it will put System 7 style Desktop files on all your disks, enabling you to use System 7 formatted disks without having to rebuild the Desktop each time. If you contact your nearest authorised Apple dealers, they will be happy to put a copy on disk for you. You can get your nearest dealer's number by calling Apple on 0800 127753.
2. Hmm, it looks like your Mac is looking for an older version of Palatino in your System Folder and is not finding it. New Macs come with a dozen different fonts – Palatino is just one of them. Each font comes in two formats: TrueType and PostScript. Your Mac uses the TrueType fonts when it's printing, but it still uses the bitmap PostScript screen font to display text on screen. With System 6, things work differently – to use TrueType fonts you must have the TrueType INIT installed in your System Folder. All of this means that your Mac is probably looking for the wrong type of font. Try installing a full PostScript format (bitmap and printer files) Palatino onto your System 7 Mac from the original System disks that came with your Mac.
3. QuickDraw GX is Apple's new(ish) graphics imaging software – it handles non-PostScript printing and on-screen graphics. Apple tell us it offers some pretty impressive new features over the old Colour QuickDraw, but the problem is that very few programs actually support it as yet – and even fewer printers (except Apple printers, of course). QuickDraw GX 1.0 was full of bugs, which Apple have now fixed in version 1.1.3. It's on the System 7.5 Upgrade 1.0 CD, which is available from the Apple Upgrade Centre on 0181 730 2828 for the princely sum of £14.95 (which is to cover the cost of delivery). It's also on the MACFORMAT 27 Cover CD, or you can download it from the Internet for free at **ftp://ftp.support.apple.com/pub/apple_sw_updates/US/Macintosh/System%20Software/QuickDraw_GX/**

As far as your printing problem goes, check that you are actually using a GX driver for your printer. You should find this in the Printer Descriptions folder inside the Extensions folder. If you don't have one, give Apple a call on 0800 127753 to get a copy. Drop it into the Printer Descriptions folder and open the Chooser in the Apple menu, then choose Setup, and your Mac will interrogate your printer. You will then be given the option of selecting a 'driver' (printer description) to translate between your Mac and the printer. If you still can't get it to work, use the Custom Remove option in the QuickDraw GX installer to remove GX and its associated files.
4. First thing to check for here is any suspect Extensions in your System Folder – there are a few about that do this sort of thing. Try restarting with the **[shift]** key down – if your Wastebasket returns to normal then you know it's an Extension. The X-Files feature in MACFORMAT 28 details the common Apple Extensions (turn to page 123 if you didn't get that issue), so isolate anything that isn't listed there, put them back one by one, then restart. If you don't turn up anything there, then the most likely explanation is that an application (probably shareware) has altered your System file – probably because the author thinks shiny dustbins are cool. If this is the case, then the quickest way to fix the problem is to reinstall the System from your backup disks (you did take a backup, didn't you?).

INIT OR EXTENSION?

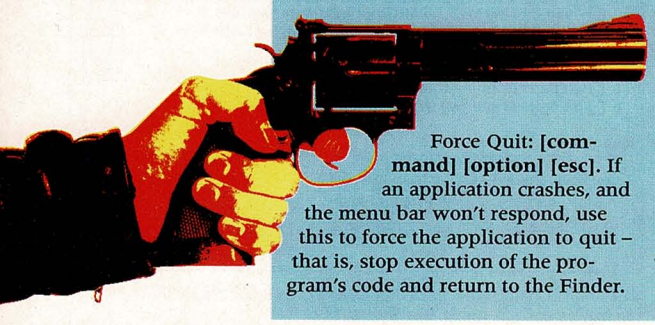
Prior to System 6, any 'plug-in' System features that you dropped into the System Folder were known as INITS. This is programmer-speak for a piece of software that changes or adds features to the Mac OS (Operating System). System 7 went all user-friendly though, with Apple renaming them Extensions so that everyone knew what they were actually talking about.

WHAT POWER KEY?

On the standard Apple keyboard, the power key is the large rectangular button at the top marked with a triangle, and on the extended keyboard it's at the top right above the number pad. When we refer to power key, we do *not* mean the power on/off switch on the front of your Mac. Just thought we'd make that clear...

TROUBLESHOOTING KEYSTROKES

Knowing what magic keys to press when you get into trouble (or more precisely, when your Mac gets into trouble) can be handy for making you look incredibly knowledgeable to members of the opposite sex who are having problems with their Macs. Some of these are a last resort to prevent your Mac from crashing, while others are really useful...



Force Quit: **[command] [option] [esc].** If an application crashes, and the menu bar won't respond, use this to force the application to quit – that is, stop execution of the program's code and return to the Finder.

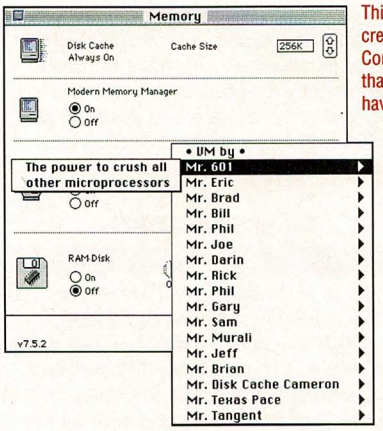
Reset: **[command] [control] [power key].** This one never fails to restart your Mac, even after a really bad crash at 100MHz. Use it when your Mac has frozen (the cursor won't move and none of the keys do anything).

Interrupt: **[command] [power key].** This drops you into the mini-debugger, which looks a bit like an empty dialogue box with a prompt. To return to whatever your Mac was doing before you decided to try these out, type **G**, then press **[return].** Don't type anything else in – you may crash your Mac. So what good is this? Well, the interrupt command was designed for programmers who needed to test software. It halts everything in its tracks – even the Operating System – so it's particularly handy if you have a problem and need time to think about what course of action to take.

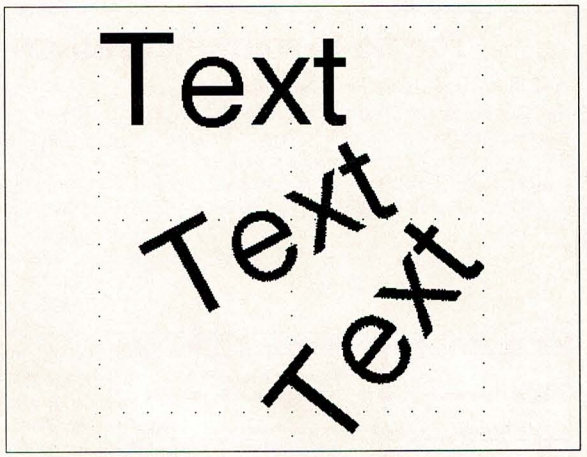
Lost Guide

EXTENSIONS

Q I cannot get the Macintosh Guide to work. I know the Guide is there, but I



This hidden list of credits in the Memory Control Panel proves that programmers do have a sense of humour – sort of. See the margin note 'Mr PowerPC'.



The problem with older programs, such as *MacDraw*, is that rotated text is based on a font's bitmap, so the printout is jaggier than the Alps. See 'Return of the jaggies'.

can't get it to open. I also had a copy of ResEdit, *but I've lost it. Where can I find this program?*
Hugh Stewart
Leper, Belgium

A You can't open the Apple Guide documents with any word processor – they are in a special format that only the Apple Guide Extension can read, and this is what you seem to be missing. You can install it from the CD which came with your 6200. Choose **Custom Install** in the pop-up menu and check Apple Guide in the Install box. You can then open Macintosh Guide from the Help menu – the one that looks like this...

ResEdit is on this issue's Cover CD inside the Resources folder, but be *very* careful with it, and *always* work only on duplicate files, keeping a backup!

Claris clips

MEMORY

Q *I've tried opening the Clip Photos on your Cover CD (MACFORMAT 29), but my Mac launches into* ClarisWorks, *then tells me 'there is not enough memory to complete this operation.'*
R D Foster, Howden,
N Humberside

A Some of the clip photos on the CD-ROM were quite large files (bigger than 1Mb), and the meagre amount of memory *ClarisWorks* usually requires to run is nowhere near enough to open pictures that are more than a few hundred K. There is a simple solution, though. In the Finder, highlight the *ClarisWorks* icon and select **Get Info** from the **File** menu (or press **[Command] I**). The Get Info box will appear – at the bottom is a text field which contains the program's memory partition (how much memory it is allowed to use). Simply type in a value roughly equal to the program's original memory partition, plus the size of the document you are trying to open (add a bit for good measure). For example, to open a 2.8Mb file, set *ClarisWorks'* memory partition to 975K + 2,800Kb = 3,775Kb – so let's make it 4Mb, yes? Close the Get Info box and launch *ClarisWorks*. Assuming you have that amount of free RAM, you should now be able to open the clip photo document.

Back me up

FLOPPY DISKS

Q *I used* Apple Backup *as suggested in the manual for my Performa 450, but now when I try to open the program it tells me the original item could not be found. On trying to use Restore I get: 'This is not a Macintosh disk. Do you wish to initialise it?' I bought the disks when I first bought my Mac, and have used some of them to successfully back up my work.*
Eric A Pardoe
Studford, Lancs

A First of all, you must have accidentally deleted *Apple Backup* and now you only have an alias of the program. If you backed up the hard disk when you first used the Mac, then the program should be on these disks. But here lies a problem in itself. It sounds as though the disks you are using have been corrupted, if your Mac will no longer recognise them. You should have a copy of *Disk First Aid* installed on your hard disk, so use this to check the disks over for defects. Note that your Mac will not mount a floppy it doesn't recognise on the Desktop, so you need to launch *Disk First Aid* first, then insert the floppies.

If this doesn't fix the disks, you need to get a file recovery and repair package, such as *Norton Utilities for Macintosh* or *MacTools*. Both are £116 from Symantec on 01628 592320, and both have more comprehensive file repair and recovery options than *Disk First Aid*. If neither of these succeed, then I'm afraid your work is lost.

Return of the jaggies

PRINTING

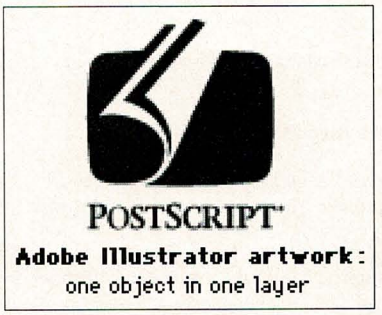
Q *I read the letter by Jim Ross in MACFORMAT 29 entitled 'Jagged Edge', which deals with the problems of non-PostScript printers. At first I thought, 'Yes! Somebody with the same problems as me!' But not quite. I'm using antiques by today's standards, but until now have been very happy. My computer is a* RAM Doubled *14Mb LCII, and for many years I have used* MacDraw 2. *I recently bought an Epson Stylus 720dpi colour printer and ran into the same problem as Jim Ross.*

On the advice of the people who sold me the printer, I bought Super ATM *from them, which, they assured me, would solve my problems. It didn't. My own cure was to use only TrueType fonts. Problem solved... or was it? In* MacDraw 2, *any font that has been rotated even slightly looks ragged, and with polygon objects the unsmoothed version prints better than the smoothed!*

Although most of the work I do is monochrome, now that I have a colour printer it would be nice to just occasionally be able to print things in colour. I am considering buying the new version of ClarisDraw, *because whatever I do buy must be able to read hundreds of old* MacDraw 2 *files. My gut feeling is that this will not solve anything either. Is there any way out for me? Or should I give it all up and become a go-go dancer?*
Nick Coburn
Shotton, Clwyd

A The problem you've encountered trying to rotate fonts is caused by a common little shortcut that *MacDraw* uses. Although it will print PostScript and TrueType fonts out normally, as soon as you rotate the text, the program gives up trying to interpret the vectors contained in the font and manipulates the bitmap screen font instead. Manipulating true vector outlines in a program requires some serious computing power, which your LCII will struggle to provide – it will do it, but slowly. The good news is that *ClarisDraw* prints rotated images smoothly, because it uses the vector information stored in both TrueType and PostScript fonts rather than just the bitmap image. The bad news is

Continued on next page



Try pasting an *Illustrator* image into a bitmap program and you get the *Adobe PostScript* logo. See 'Vector image' over the page.

MR POWERPC

If you own a PowerMac, you can see a hidden list of the programmers who worked on the virtual memory system for your Mac. Open the Memory Control Panel and turn virtual memory on. Then hold down the **[option]** key and click in the pop-up menu to choose a disk.

FPU TOO

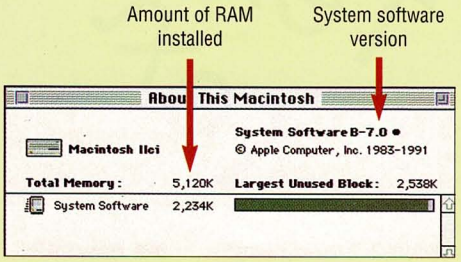
A floating point unit, also referred to as a maths co-processor, is a special chip inside your Mac which excels at doing complex mathematical calculations. All new Macs, with the exception of non-PowerMac Performas and LCs, have an FPU built into the main processor. Most spreadsheets and all 3D modelling programs require an FPU to work.

The do-it-yourself problem solving guide...

One of the most common causes of problems on the Mac are Extensions or Control Panels clashing in your System Folder. It's easy to check if this is the case. Restart your Mac and hold down **[shift]**. Release the key when you get the message, 'Welcome to Macintosh. Extensions off.' If everything works, then the problem lies in your System Folder. The only way to work out which item is the culprit is by trial and error. Remove a few Extensions and/or Control Panels, then restart your Mac, without holding **[shift]** down. Keep on doing this until the problem no longer occurs and you've found the offending software.

If this doesn't work, try rebuilding your Desktop. Start up your Mac holding down **[command]** and **[option]**. You'll get a message asking if you want to rebuild the Desktop. Click **[OK]**, wait for it to finish rebuilding your Desktop, and see if this solves your problem.

If you're still stuck, use the form below to write to us. We'll need to know a few facts about your Mac, so when you're in the Finder, select About This Macintosh from the Apple Menu. The picture (left) shows what we need to know.



QUICK REBUILD

If you want to rebuild your Desktop without restarting, quit all open applications, press **[option] [command] [esc]** in the Finder, and the **Force Quit** dialogue will appear. Hold down **[option] [command]** and click on **Force Quit.** Once the Finder reloads, it will ask you if you want to rebuild the Desktop.

Vector image

ICONS

Q *When I attempt to make a new icon in* Adobe Illustrator *by creating the graphic, selecting it and then pasting it onto the standard folder in the Get Info box, the standard folder is replaced, but not with the icon I've created. It's something resembling a scrawl. Is there a special way of creating an icon with this application?*

Suhail Akhtar
via e-mail

A Nope, sorry, you can't. *Illustrator* is an object orientated program, meaning that it's based on vectors and other nasty mathematical things, whereas bitmap based programs such as *Painter* or *Photoshop* just map pixels. The Finder also uses bitmap images as icons, so you can't paste in a vector image. The 'scrawl' you mention is a much scaled down Adobe Postscript logo. *Illustrator* automatically copies this to the clipboard along with the vector image, so that users know there is actually something there (vector images in the clipboard don't show on screen either). The Mac scales this to fit the 32 x 32 pixel square available to icons, because it thinks this is the image you are trying to paste. What you can do is to design the icon in *Illustrator*, take a screenshot by holding down **[command] [shift] 3,** then open the screenshot in *SimpleText* (or any image editing program). Select the part of the image you want to use as an icon by dragging a marquee round it, and copy the selection to the Clipboard. Then paste the new icon into the folder's Get Info box.

SCSI or IDE?

HARDWARE

Q *In* MacFormat *29, DT Woodhouse asked about attaching a PC drive to his Mac. You said he couldn't because all Macs use SCSI and PCs use IDE, but you did say that the Performa 630 has an IDE drive. Does this mean I can connect an IDE drive to my 630?*

Ludwig Heyden
Dickenslaan, Utrecht

A Sort of, yes. Okay, we admit it – we did say that you can't connect an IDE hard disk to a Mac – this is true. But the Performa 630 and 5200 do come with IDE drives fitted. So, are we making this up as we go along? The answer is that you can fit an internal IDE drive to these models, but only one. No Mac has an external IDE port as yet. You can replace the internal IDE drive with one of a larger capacity, but this will invalidate the guarantee on your Mac and isn't recommended if you're a home user. If you do want to upgrade your internal IDE drive, take it to an Apple authorised repair centre and tell them precisely what you want. But then they'll probably charge so much to fit a new drive that it would be cheaper to buy an external SCSI drive anyway. **MF**

If you send in a question for the MacFormat experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to: MacAnswers, MacFormat, 30 Monmouth Street, Bath BA1 2BW or fax it to us on 01225 446019.

Name .....

Address .....

.....

.....

.....

Your Mac
(For example, Performa 200, IIfx, PowerBook 145):

.....

System version
(see **About This Macintosh** screenshot above): .....

Amount of RAM
(see **About This Macintosh** screenshot above): .....

Are you using Virtual Memory? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Do you have 32-bit addressing turned on? ..... **YES/NO**
(This is accessed from the Memory Control Panel under System 7)

Details of any relevant hardware which could help us to answer your question:

.....

.....

Now, use this space to describe your problem or question. Please include as much relevant information as possible, and continue on a separate sheet if necessary.

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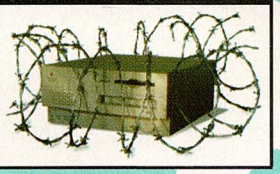

WHEN YOU CAN HAVE THIS!

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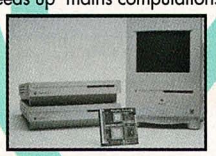

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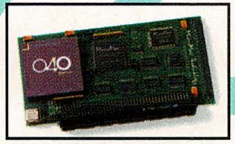

Quadra 650,700,800,950

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Vram:
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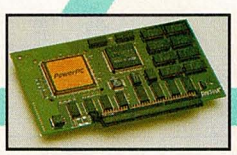

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FEATURES

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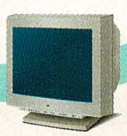
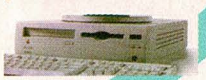


If you own a Mac 630 ?



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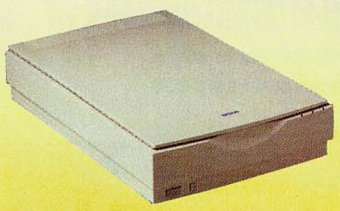

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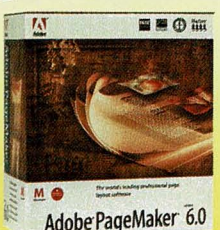

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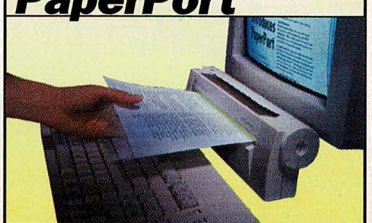

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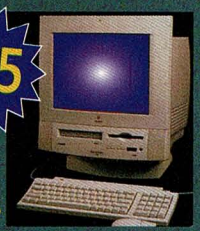

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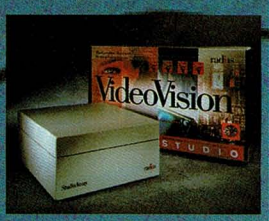

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A new beginning

PCI. 601 chips. DIMMs. The latest Macs are not just faster, they're a new breed of Mac. So what's the catch?

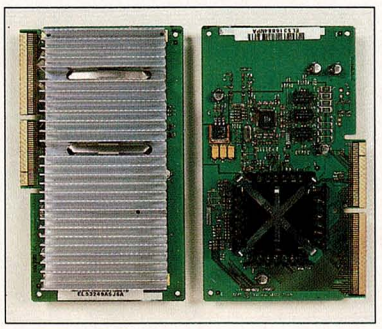
Earlier this year Apple replaced the entire heart of their computer line-up. The 6100, 7100 and 8100 were replaced with the 7200, 7500 and 8500, offering exciting new technologies previously only seen in the very expensive 9500.

Over the next six pages we'll take a detailed look at these Macs and the new developments they bring with them, and ask whether progress is always a change for the better.

Continued on next page

The new PowerMacs

More power, less money, new technology. Surely the PCI Macs are everyone's dream? Derek Smith takes a closer look, and mutters quietly to himself...



The daughterboard on the left is from a 7500; the one on the right is from an 8500.

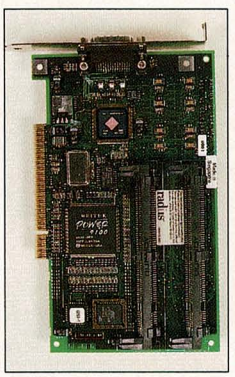
GEOPORT

All the PCI Macs can support a GeoPort adaptor, enabling your Mac to plug into the phone system without the need to attach a separate modem.

The first of the new technologies being introduced by Apple with their new range of PowerMacs is the PCI slot (Peripheral Component Interconnect), which replaces the now redundant NuBus. The PCI slots and cards look and work in a similar way to NuBus, enabling you to add specialist cards to expand your Mac's capabilities. The only problem is that the two standards are completely incompatible, which means, unfortunately, that you won't be able to take your NuBus cards with you when you upgrade your Mac – which ups the cost of a new Mac immediately.

If you have already invested a lot of money in NuBus cards, adaptors are being developed to enable them to be used with PCI Macs. Your best bet, however, will be to sell them on and buy new PCI cards with the money.

So what are the benefits of Apple switching codes? Well, PCI cards are not only faster than their NuBus equivalents, they are also much cheaper. This is because the PCI slot is fast becoming a standard in the DOS compatible PC market, meaning that cards are produced in much greater quantities. PCI cards usually have to be adapted by the manufacturer to work in a Mac, but it's simple and cheap to do. With many manufacturers eager to exploit this new market for their wares, you'll soon have a wider choice of add-on cards, at a lower price. The irony is that there's never been less reason to buy an expansion card, now that so many previously optional features, such as audio visual (AV) capability, are becoming standard.



PCI cards look similar to their NuBus predecessors, but should be much cheaper.

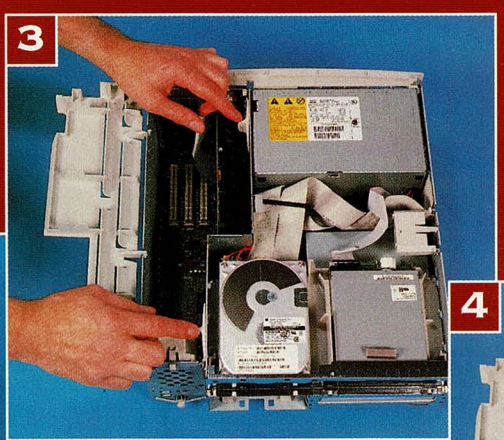
Undoubtedly, the switch to PCI will annoy some loyal Mac buyers, but so will the new RAM chips. Until about three years ago, Apple used 30-pin SIMM cards to expand memory in their machines. Apple then swapped to the 72-pin SIMM in most of their Quadras, and all of the PowerMacs. The 72-pin SIMMs are superior in speed and design, but completely incompatible, meaning you can't take 30-pin RAM with you when you upgrade your Mac. Now, the new PCI PowerMacs use yet another type of memory card, known as the 168-pin DIMM (dual in-line memory module), and it is, of course, totally incompatible with both 30-pin and 72-pin SIMMs.

DIMMs do at least have some advantages. Again, they are faster, but more importantly, you can add them singly – SIMMs usually have to be added in pairs. This means that even if you have two empty SIMM slots in your Mac, you can only add memory once. Now even the entry level 7200 has four DIMM slots, enabling you to add RAM slowly as your needs increase. There will be adaptors to enable 72-pin SIMMs to be used in a DIMM slot, but you'll lose the speed advantage.

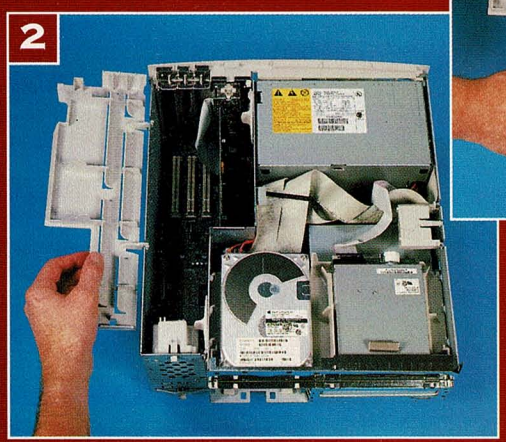
A welcome addition to all the PCI Macs is the ability to have up to 4Mb of video RAM (VRAM), enabling more colours than you'll probably ever

GETTING INSIDE THE 7500

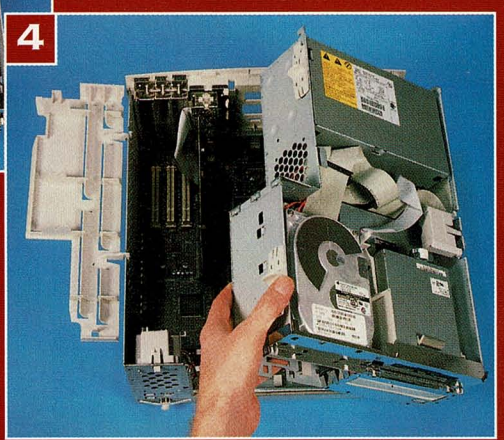
The 7200 and 7500 have a brilliant new case design. To open, pull the outer casing towards you.



To get at the rest of the gummings (that's a technical term for 'expansion slots', allegedly), flip two switches inwards...



To access the PCI expansion slots and the daughterboard of the 7500, simply open the left hand panel. That's all there is to it.



...and the rest of the hardware opens up on a hinge, giving access to the DIMMs and cache slots.

OPEN TRANSPORT – A SMALL LEAP BACKWARDS?

Heard of Open Transport? Well, you might have. Know what it is? Unlikely. The problem is that it's difficult to pinpoint exactly what Open Transport does. Essentially, it improves the way your Mac networks to other Macs, or indeed to any other computer systems – including the Internet.

Much of Open Transport is fairly irrelevant to the majority of Mac users, but if you network to PCs, Novell servers or Unix machines, then it may improve and speed things up in the future. The biggest benefits will be felt by developers, who currently labour under a plethora of complex protocols – all of this is simplified for them. Open Transport works on all Macs, but at the moment it is only part of

With Open Transport comes the new AppleTalk Control Panel. Well, at least this bit of it works.

System 7.5.2, which is only available on PCI Macs. The visible differences start with the AppleTalk Control Panel, which replaces the Network Control Panel. It's no easier to use but it does look better. The same could be said of the new TCP/IP Control Panel, which replaces MacTCP. This Control Panel is essential for connecting to the Internet, so it's rather unfortunate that it doesn't actually work. We experienced terrible problems trying to connect these new Macs to Internet and Unix servers, which were finally tracked down to the TCP/IP Control Panel. Once we replaced this with the old MacTCP Control Panel, everything worked fine.

The problem with Open Transport is that it's very new, and consequently rather flaky. Apple have grand plans for it, and maybe in the future it will make our lives easier. But for the time being, it's a bit of a liability.

want, on monitors bigger than you'll probably ever be able to afford. It goes without saying that the new VRAM SIMMs are incompatible with the old type. Sigh.

Emulation

All of these incompatibilities remind us of how well the original PowerMacs were designed. Despite having a completely different processor from the non-PowerMac Macs, they were able to run non-PowerMac native software designed for these older Macs. This compatibility is due to a built-in emulator. Unfortunately, these programs don't run any faster on a PowerMac – possibly even slower than on a top end Quadra. The PCI Macs have a new emulator built in which is considerably faster than the old one, using a similar technique to Connectix's software solution, *Speed Doubler*. Not only will older, non-native programs run quicker, but so will the System software, which isn't fully native yet – not even System 7.5.2, which comes with all PCI Macs. Don't wait for the System updater to appear though; System

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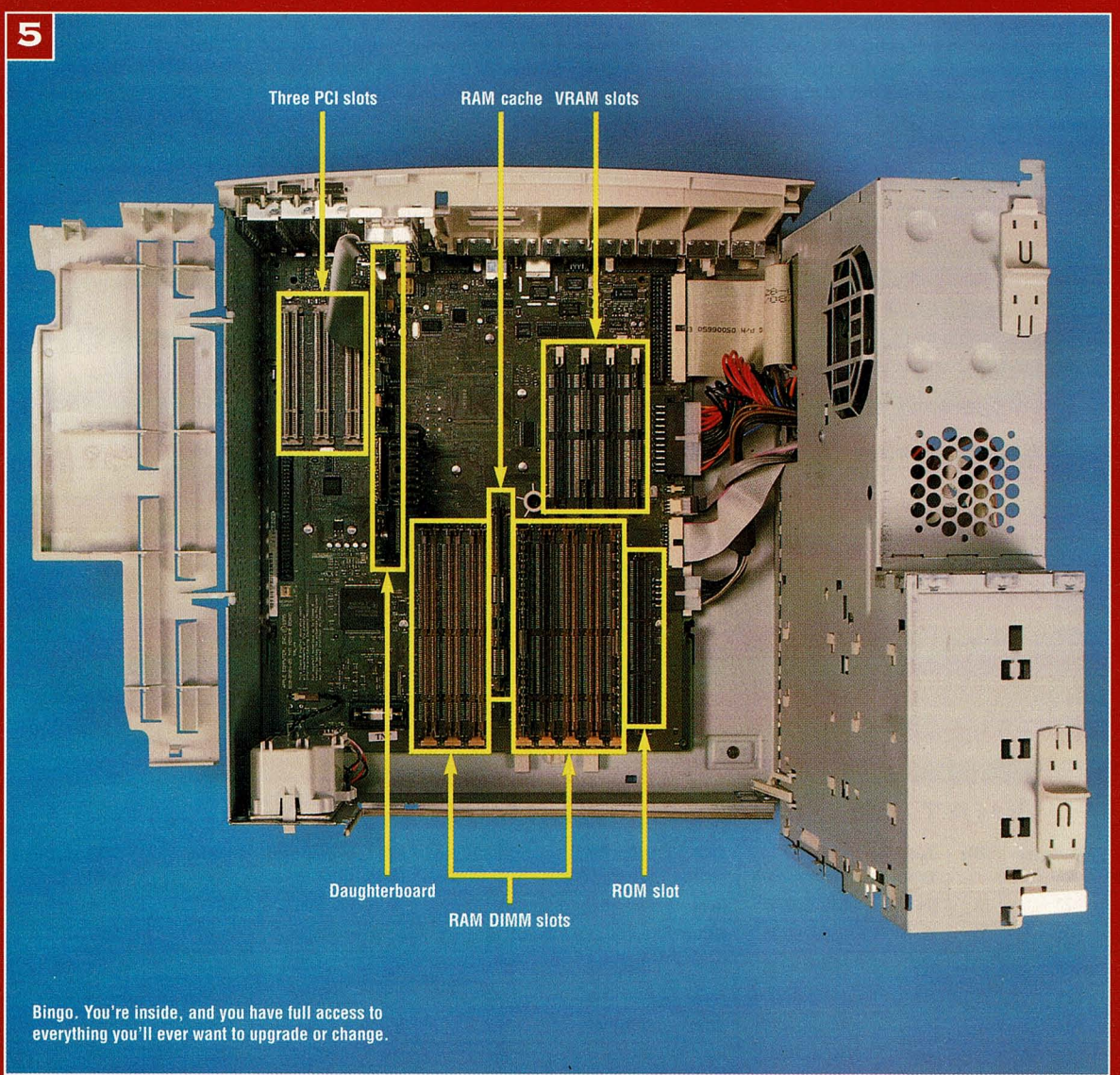
INSIDE THE 7500

5



Bingo. You're inside, and you have full access to everything you'll ever want to upgrade or change.

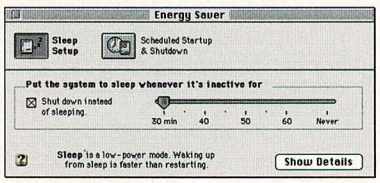
MONITOR SIZE
All the PCI Macs support 21-inch monitors at up to 1,280 x 1,024 pixels.

DAUGHTER-BOARDS?
The 7500, 8500 and 9500 have their main processor chips mounted on a small, removable circuit board rather than on the main motherboard with all the other circuitry. This makes it easier and cheaper to upgrade these machines – just unplug the daughterboard and plug in a new one.

ETHERNET
As well as offering an AAUI port for connecting to the old style thin and thick EtherNet, all these Macs have an RJ45 port built in, enabling you to attach directly to the most common type of EtherNet – 10base-T.

7.5.2 is PCI specific, so it won't run on older Macs. This update was mainly necessary to work with PCI cards, but Apple also decided to introduce Open Transport and some new Control Panels for AV options.

Although Apple should be congratulated for the software compatibility brought about by their emulator, there is now a whole new compatibility problem with the 8500 and 9500. They have a new chip, excitingly called the 604, which is a lot more powerful than the 601 but has two problems. First, programs have to be specially adapted to take full speed advantage of the chip's design, and second, some current programs won't run properly with it at all. These aren't obscure shareware programs, mind – we're talking *Photoshop*, *FreeHand*, *Speed Doubler*, and a host of other mainstream programs. Adobe, Macromedia and Connectix have all brought out updaters that will enable their programs to work with the 604 chip, but you have to download them from the Internet.

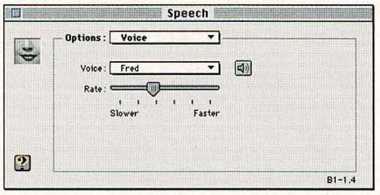


All the PCI Macs have a energy saver feature, which can automatically put your Mac to sleep when it's inactive.

Since these are exactly the sorts of programs that owners of these powerful machines are likely to run, it's a shame there was no warning of these problems. In fact, the decent thing to do would have been to include the updaters free with the Macs.

On the bright side...

So, are these Macs good news for you, the consumer, or are they just filling the coffers of the manufacturers of adaptors? Well, they're certainly very powerful, with the entry level 7200 running at 75MHz – only a fraction slower than the 8100/80, which was top of the range not so long ago. It also has all the expandability you could wish for, which the Mac it's replacing, the 6100, certainly didn't, and this is all for about the same price.



The Speech Control Panel gives you a wide choice of voices in which your Mac can read to you. Unfortunately most of them are so wacky that it's about as intelligible as Ossie Ardiles.

Meanwhile, for the cost of a 7100/80, the 7500 offers even greater speed, more upgradability with its daughterboard, and some AV features. The 8500 and 9500 are less attractive and appear overpriced – perhaps suggesting that you are really paying a huge premium for being the first to use the new 604 processor?

The incompatibilities that PCI, DIMMs and the 604 chip bring are very annoying, but this would appear to be the hidden price we pay for our ever increasing desire for speed. No pain, no gain?

SPEED IS OF THE ESSENCE

We used the performance measuring utility *MacBench* to test just how fast the new Macs are in comparison to a Quadra 630, which is the fastest current non-PowerMac model. So, with the Quadra as the benchmark measuring 1 in each test, the processor speed of the 7200/75 is more than two and a half times faster, maths co-processor (Floating Point Unit or FPU) operations are 14.5 times faster, and so on. We also fitted a RAM cache to some models and re-tested them to assess what difference this optional extra made to their performance.

Mac	Processor speed
Quadra 630	1
7200/75	2.65
7200/75 + cache	3.3
7200/90	3.1
7200/90 + cache	4
7500/100	3.47
7500/100 + cache	4.42
8500/120	5.5
9500/132	6.1

Mac	Disk (read/write access times)
Quadra 630	1
7200/75	0.7
7200/75 + cache	0.8
7200/90	0.96
7200/90 + cache	1.35
7500/100	1.05
7500/100 + cache	1.33
8500/120	1.28
9500/132	1.55

Mac	FPU (maths-intensive calculations)
Quadra 630	1
7200/75	14.5
7200/75 + cache	15.4
7200/90	16.5
7200/90 + cache	17.8
7500/100	17.7
7500/100 + cache	19
8500/120	19
9500/132	18.6

Mac	Video (screen redraw speed, etc)
Quadra 630	1
7200/75	0.9
7200/75 + cache	1.12
7200/90	1
7200/90 + cache	1.44
7500/100	1.48
7500/100 + cache	2
8500/120	2.3
9500/132	N/A

WHAT DO YOU GET FOR YOUR MONEY?

Mac	Average street price	Processor chip	MHz	Daughter-board	RAM supplied/max	RAM Cache	Video RAM supplied/max	Quad-speed CD drive	PCI slots	Min hard drive	Video	Video capture (pixels)
7200/75	£1,120	601	75	No	8Mb/256Mb	None	1Mb/4Mb	No	3	500Mb	None	None
7200/90	£1,420	601	90	No	8Mb/256Mb	None	1Mb/4Mb	Yes	3	500Mb	None	None
7500	£1,850	601	100	Yes	8Mb/512Mb	None	2Mb/4Mb	Yes	3	500Mb	In	320 x 240
8500	£3,900	604	120	Yes	16Mb/512Mb	256K	2Mb/4Mb	Yes	3	700Mb	In and out	640 x 480
9500/120	£4,100	604	120	Yes	16Mb/768Mb	512K	2Mb/4Mb	Yes	6	1Gb	None	None
9500/132	£5,200	604	132	Yes	16Mb/768Mb	512K	2Mb/4Mb	Yes	6	1Gb	None	None

PowerMac 7200

Replacing the 6100 is the hefty 7200, and it comes with some pretty impressive credentials.

Apple still has a Performa range, but the 7200 takes over from the 6100 as Apple's main entry level machine. Although the 6100 made PowerMacs affordable and is a great Mac, it had a couple of drawbacks.

First, it isn't very expandable, with just one PDS (processor direct slot – an expansion slot for things like accelerators and processor updates), and no NuBus slots. This means you can't add many cards to it, but if you're looking for expandability you wouldn't have bought the 6100 in the first place.

The second problem is more serious. Running a monitor requires 1Mb of the 6100's normal RAM, rather than using separate video RAM. This means less RAM for your programs, and it is impossible to upgrade the amount of VRAM. The largest monitor you can attach is 17-inch, with 256 colours. The only way around this is to buy the expensive AV card and use up the only expansion slot.

Expandability

The 7200 goes to the opposite extreme, with no less than three PCI expansion slots. It's difficult to imagine how you would fill all three up. A graphics accelerator card is the most common add-on, but if you need super fast graphic redraw on your monitor you'll probably want a more expensive Mac anyway. You probably won't want a separate graphics card, though, because the 7200 uses proper VRAM rather than the Mac's RAM. Although it only comes with 1Mb of VRAM, there are three empty VRAM slots, enabling you to upgrade to a maximum of 4Mb. Expect to pay around £75 per megabyte.

The 7200 also has a spare 3.5-inch disk bay, enabling you to add another internal hard disk. Internal hard disks are around £70 cheaper than their external cousins, because they don't need a separate power supply or casing. They also don't take up any desk space, all of which means that you can expand your hard drive capacity cheaply and easily at any time. All this expandability is very welcome, but a smaller, cheaper version with no PCI slots or disk bays could have made PowerMacs even more affordable.

The 7200 has four DIMM memory slots, although the standard model comes with one 8Mb DIMM installed, leaving three spare. However, 8Mb is inadequate to run much except *SimpleText* because System 7.5.2 takes a minimum of 3.5Mb. An 8Mb DIMM costs around £275. Since DIMMs can be added singly, you can add more RAM on three occasions, and with DIMMs up to 64Mb in size, you can have a whopping total of 256Mb.

RAM caches are memory cards very similar to DIMMs, but are much faster, and boost your Mac's performance significantly. The previous range of PowerMacs all came with a RAM cache, but the 7200 doesn't, which is a disappointing step backwards – especially as the PCI Macs require an expensive new type of RAM cache (what a surprise), which starts at £200 for the 256K version. Whereas most home users will never use the PCI slots, everyone benefits from the speed gain of a RAM cache. Without it, the 7200/75 runs no faster than a 6100/66, which does have one.

If you're thinking of buying a 7200, it certainly is an impressive machine, although it starts to get expensive when you buy more RAM and a cache. It's available in two flavours: either with a 75MHz or a 90MHz 601 chip. The speed of the processor is the only difference, although at present you don't have the option of buying the 75MHz version with an internal CD-ROM drive in this country – a bizarre situation, bearing in mind that the cases are identical, and it's certainly not due to any technical reason. We swapped the CD-ROM out of a 7500 into a 7200/75 with no problems.

If you're thinking of adding a CD-ROM drive yourself, no kit currently exists, so if you want a 7200 with a CD you'll either need to buy the 90MHz version or an external drive. Mind you, if you buy the 7200/90 CD, don't spend too long searching the packaging for a System CD. Apparently there's a shortage of the CDs, so you just get the floppies instead.

EXPANSION

PDS expansion slots are for upgrades, such as accelerators and processor updates. NuBus slots are for add-ons, such as video cards. Most Macs have a PDS slot, bar the LCs, which have their own, more limited LC PDS slot. All Macs brought out in the last three years or so have NuBus slots.

SPEED COUNTS

The old NuBus connector had a maximum speed of 10MHz, whereas PCI has a maximum speed of 33MHz.

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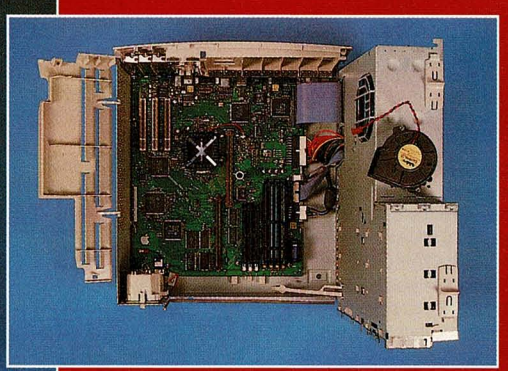
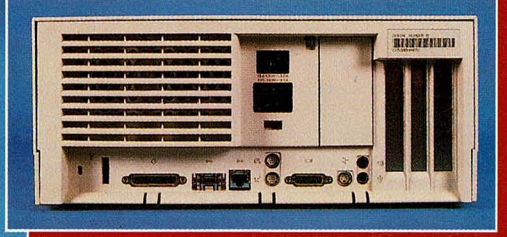
Looks may not be crucial to a Mac's performance, but the 7200 certainly is an attractive combination of the boxy 7100 and the curvy 630.



Inside, the 7200 is very similar to the 7500, but lacks the daughterboard and only contains four DIMM slots.



There's nothing of great surprise at the back of a 7200, except for the RJ45 socket for EtherNet networking.

PowerMac 7500

Replacing the 7100, the 7500 looks identical to the 7200. But what's it got under the bonnet?

The 7500 shares the same fine looks and casing as the 7200 and internally is very similar. That's good news, partly because it's a good case design, and partly because it means that Apple will soon be producing a motherboard upgrade kit to enable 7200 owners to upgrade their machines to a full 7500. So why does it cost between £500 and £900 more?

The most important difference is the processor – not so much that it's a 601 chip running at 100MHz, but that it comes on a daughterboard. This daughterboard can be whipped out in the future, to be replaced by one containing a faster chip. Indeed, Apple will be making the daughterboard used in the 8500 available for the 7500 next year. We swapped the daughterboards from these two machines around, and both Macs worked fine, indicating good compatibility.

DayStar are working on a daughterboard containing four 604 processors. While this may be extremely expensive initially, 7500 owners will be able to upgrade in a couple of years time when prices have dropped and their machines are starting to look slow.

CONFERENCING

The 7500 and 8500 come ready for use as video conferencing machines, although you'll need to buy a special camera. Expect to hear more about this in the future.

DIY multimedia

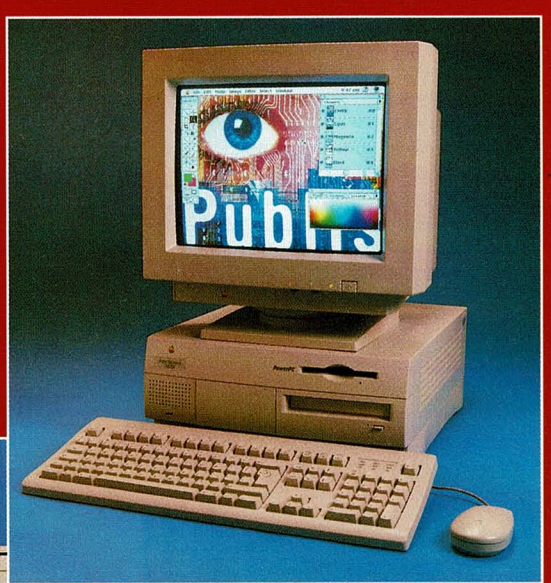
The next difference is that the 7500 offers built-in AV (audio visual) options. These consist of S-video and composite video input, and stereo line audio input and output. This makes the 7500 an ideal machine for low end multimedia authoring, able to accept video from most sources – we even hooked up a Sony PlayStation.

To achieve anything with these AV capabilities, you need video editing software. It's good to see, then, that you also get a free copy of *Avid VideoShop* – an impressive video editing package that scored 91% back in MACFORMAT 21, and which normally retails for around £270. It comes on CD, which is no problem as the 7500 is only available with a quad-speed CD-ROM drive.

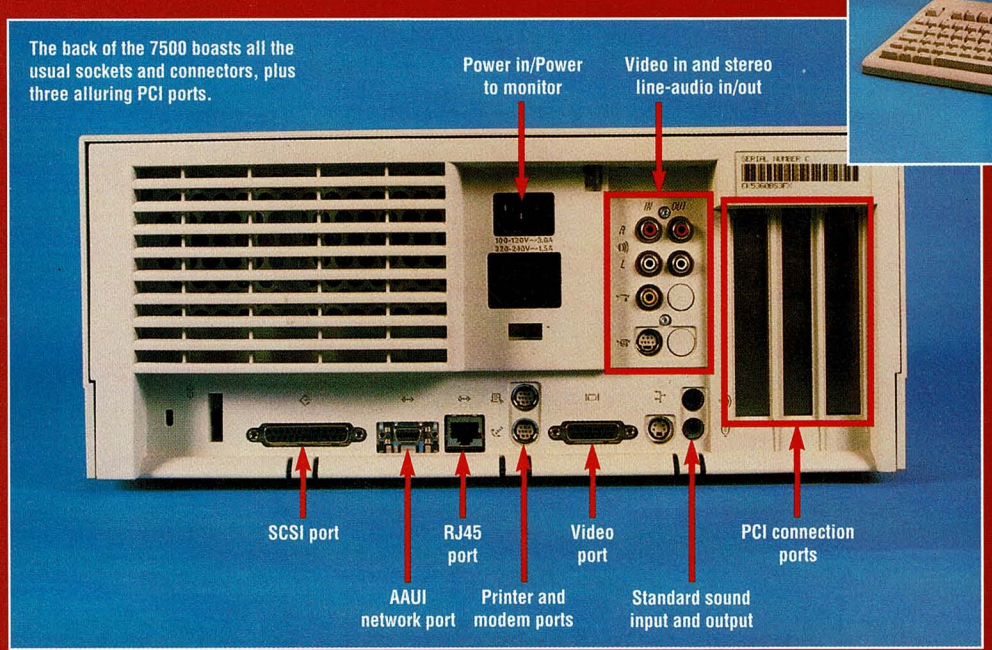
But whether this should be standard at all is another question. Are many people who want the power and upgradability of a 7500 also likely to want the AV features? Perhaps the hardware money would have been better spent on a RAM cache card, which, as in the 7200, is missing. And instead of *VideoShop*, perhaps *ClarisWorks* or *RAM Doubler* would have been of more general appeal.

The 7500 also comes with a paltry 8Mb of RAM, but it does have eight DIMM slots, enabling you to upgrade it to a massive 512Mb of RAM. Unlike the 7200, however, its 601 processor is only available at one speed, 100MHz, which means that it only runs some 10% faster than a 7200/90.

To justify spending the extra £400 for the 7500, you'll either want the AV options or like the idea of being able to upgrade the processor to give your Mac a longer life. The 7500 is a fine machine, but if you're after AV you'll get better quality from a 7200/90 with a proper AV card. This is because, although the 7500 can display a video input at full screen, to capture the picture into a QuickTime move it will only record at a quarter of the resolution. If it's the processor upgradability you want, then £400 is a lot to pay just to have this option in the future.



Externally the 7500 is identical to the 7200, meaning that Apple are able to produce an upgrade kit to turn your 7200 into a 7500.


The back of the 7500 boasts all the usual sockets and connectors, plus three alluring PCI ports.
Power in/Power to monitor
Video in and stereo line-audio in/out
SCSI port
AAUI network port
RJ45 port
Printer and modem ports
Video port
Standard sound input and output
PCI connection ports

PowerMac 8500 and 9500

If you want real power, or if you want to dream, then take a look at what these beauties have to offer.

They're fast, there's no question about that, but why are these top of the range machines so expensive? The answer lies beneath a giant metal heat sink deep in the recesses of the spaghetti circuitry. The 8500 and 9500 are the first machines to be powered by the latest PowerPC chip, the 604 – more powerful than the 601, and running at a minimum of 120MHz. These machines will blister through the toughest graphics work you can throw at them.

The tower case design of both Macs forms a stark contrast to the well-engineered 7200 and 7500, harking back to the internal ugliness of the 8100. If you take a screwdriver to the back and manage to prise the metal casing off, you'll realise that to add RAM you need to totally disassemble your Mac – if you've brave enough. Perhaps Apple's reasoning is that if you can afford one of these babies in the first place, you can afford an engineer to upgrade it. Fine for those people who take their car to the garage to get the oil changed.

Despite the tower design, you still only have three PCI slots in the 8500, although there's a whopping six in the 9500, and both come with quad-speed CD-ROM as standard. The 8500 has a spare 3.5-inch bay for another internal hard drive, while the 9500 has room for two, one of which can be used for removable media such as a DAT tape drive – ideal for file servers.

Apple generously give you 16Mb of RAM, so you'll just about get *Photoshop* running. At least, as long as you have version 3.0.4. Earlier versions of *Photoshop* won't work properly.

At least you do get a 256K RAM cache in the 8500 and a 512K cache in the 9500. Also as standard, the 8500 comes with all the AV ports of the 7500, plus S-video and composite video out. This means that you aren't restricted to multimedia presentation designed for the Mac screen, but you can output your masterpiece back to video tape, or display it on a large screen TV.

Just as it's questionable how many people are actually likely to make use of the AV ports on the 7500, the ability to output your work to video tape will probably be lost on most buyers of the 8500. If you're looking for the speed of the 8500, then maybe a cheaper option would be to buy the 7500 and get the 604 daughterboard when it becomes available.

The 9500 doesn't waste any of your money on AV options you may never use. In fact, the 132MHz version doesn't even have a video port for you to connect your monitor! After all, if you need a £5,000 computer, then you'll need a separate PCI graphics card for super fast monitor speeds. You can see the logic, but it's particularly galling if you buy a 9500 as a file server, only to have to buy a graphics card in order to hook up a cheap mono monitor. A strange contrast to the AV out ports on the 8500.

If you are after a complete video editing machine, then the 8500 is certainly a complete ready-made solution, with its 120MHz 604 processor delivering plenty of speed. Unlike the 7500, you can record video at full screen size, but it would be wise to check first whether the output quality is good enough for your needs. If you are a home user, then it will be more than sufficient, but a professional user would be better off with, say, the 7500 with a dedicated video input/output card, which would come to about the same price as the 8500.

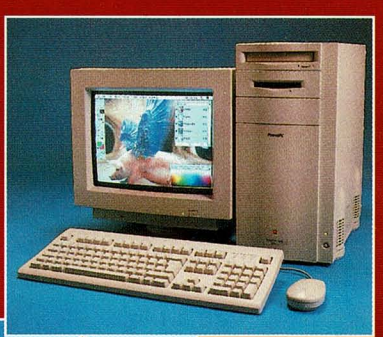
The 120MHz 9500 looks poor value, offering the same processor but lacking the AV ports and costing slightly more. The 132MHz version seems even more overpriced, costing about £1,000 more for the extra 10% speed. So unless you need six PCI slots, stick with the 8500. If you do use six PCI cards, please write and tell us about your machine – it would certainly be a fascinating Mac. **MF**

DAV

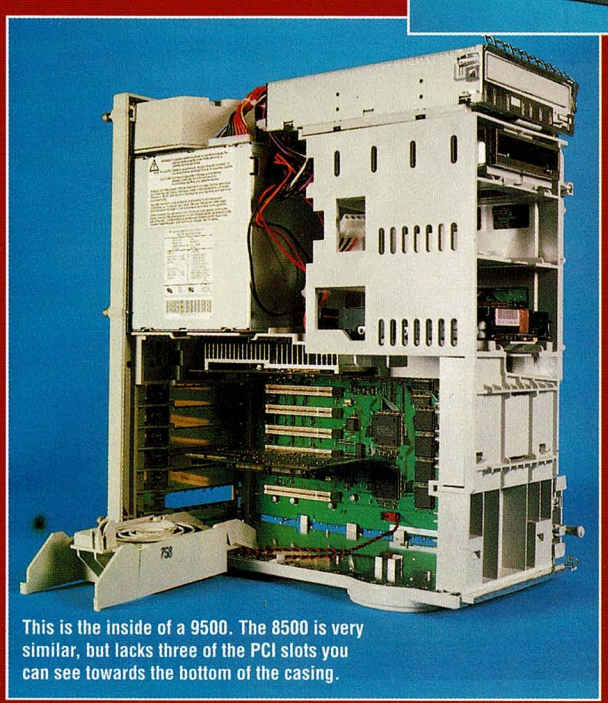
The 8500 has an internal digital audio/video (DAV) slot for connecting video compression/decompression cards.

UPGRADES?

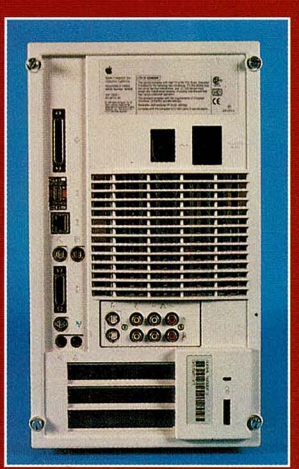
There is talk that Apple will be offering a motherboard upgrade for the 840AV and 8100 series, to turn them into 8500s. Watch for further news in MACFORMAT.



Big boy of the set is the 9500, ideal for graphics work and showing off.



This is the inside of a 9500. The 8500 is very similar, but lacks three of the PCI slots you can see towards the bottom of the casing.



The back of the 8500 reveals the same ports as the 7500, but with two video out connectors.

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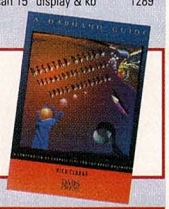

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Charger Accelerator	58	Adaptor II	29
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Powercache 40MHz CoPro SE/30	194	Turbo040i 33MHz NoCoPro	162
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Photomatic Mac FD	3	Adaptor IIcx	29
Powercache 33MHz & CoPro	117	Image040 Accelerator	519
Adaptor IIcx	29	Adaptor Classic	29
Image040 Accelerator	519	DualPort IIsi & CoPro	48
Adaptor Classic	29	Powercache 40MHz NoCoPro SE/30	117
DualPort IIsi & CoPro	48	Turbo040 33MHz & CoPro IIsi/ci	117
Powercache 40MHz NoCoPro SE/30	117	Powercache 40MHz & CoPro	163
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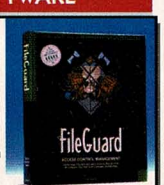

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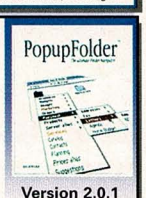

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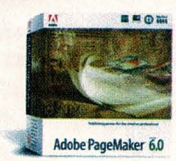

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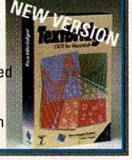

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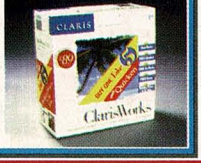

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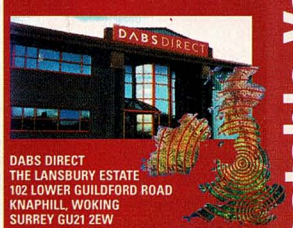

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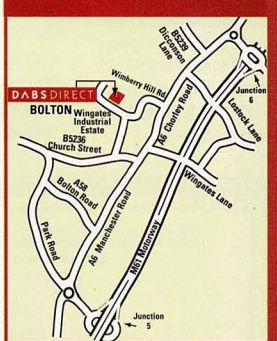

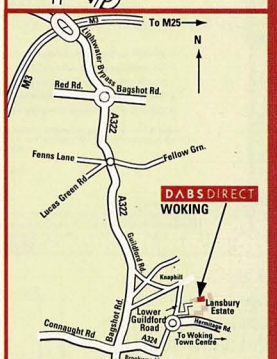

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PageMaker 6

For many, professional DTP means *QuarkXPress*, but the latest version of *PageMaker* could change this. Rod Lawton assesses the competition.

TAGGED ASCII
ASCII is a plain text format with no styles whatsoever attached, so that your software can recognise it whatever program or computer it was originally created on. Tagged ASCII is the same plain text format, but with style commands embedded.

PageMaker and *QuarkXPress* are two very different pieces of software, each with its own followers. Although they can achieve the same results, the two programs work in very different ways. *XPress*, which is the more widely used desktop publishing program, takes a precise and highly structured approach to page design, while *PageMaker* encourages a more freeform approach. This is unchanged in the latest version, but *PageMaker 6* also boasts many improvements and additions to the existing tools, as well as some major new features.

SIGNATURES
In web-offset printing, pages are printed 16 or 32 at a time, on single sheets. The 'signature' is the layout of pages so that they run in the right order once these giant sheets are folded and bound together into your finished book or magazine.

Imports

PageMaker 6 offers a great deal of cross-application and cross-platform compatibility. Importing text into your document is simple, as *PageMaker* can read many file formats, including *ClarisWorks* (up to version 3), *MacWrite 2, MacWrite Pro, Excel, Word 6, Microsoft Works 2* to *3*, ASCII and tagged ASCII, RTF (Rich Text Format) and *WordPerfect 2* to *3*. *PageMaker* can also import text files from most of the leading PC word processors. You can open documents created by previous versions of *PageMaker*, you can save in the *PageMaker 5* format, and you can open *PageMaker* documents created on the PC, if they are from the same version. You can also import a wide variety of graphics files – EPS, GIF, JPEG, Photo CD, PICT, *MacPaint*, TIFF, and a host of PC graphics file formats.

Once you've set up your master page or pages (which dictate the page setups for the whole document), you can position new items where you like – you don't have to create graphics or text boxes first. You import either text or graphics using the **Place** dialogue, which prompts you to choose the item to place. Once you've done that, a right-angled cursor shows you that the item is ready to place on the page, and then it's just a case of deciding where to put it. The graphics come in at 100% and you resize them to suit, while the text flows in between your master page's preset guides.

The way text is imported is strange if you're new to *PageMaker*. When you import text, it flows into a single box, with an 'overflow' symbol at the bottom if you run out of space. You click on this symbol to load up the excess text, and flow it into a second box, and keep going until all the text is used up, leaving a series of linked boxes. This section of text is called a story, and any changes you make anywhere in the sequence will probably cause the text to reflow throughout the story. You can move the various boxes in the story about, but heaven help you if you delete one of them: you can't undelete it, so the text it contains is lost forever.

Your *PageMaker* document can have any number of different stories, which you can edit directly in the layout or using *PageMaker's* built-in Story Editor – a high-speed text editor that flows the modified text back into the document when you've finished editing it.

Graphics can either be placed separately, 'in line' with (embedded in) the text, or as independent items. Most designs will have separately-placed graphics, but embedded pictures can be useful, especially if you want to design pages for the World Wide Web.

Tools of the trade

Adobe publish *Photoshop* as well as *PageMaker*, so it's no surprise (but still significant) to see *Photoshop*-compatible plug-ins included, enabling you to modify imported TIFF images.

In fact, *PageMaker 6* has all the text and graphics tools you need to pro-

Untitled-1
File Edit View Go Bookmarks Options Directory Help
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Computing - Hundreds of features on PC, Mac, ST, Amiga and more
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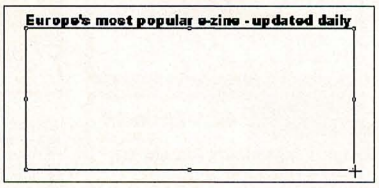
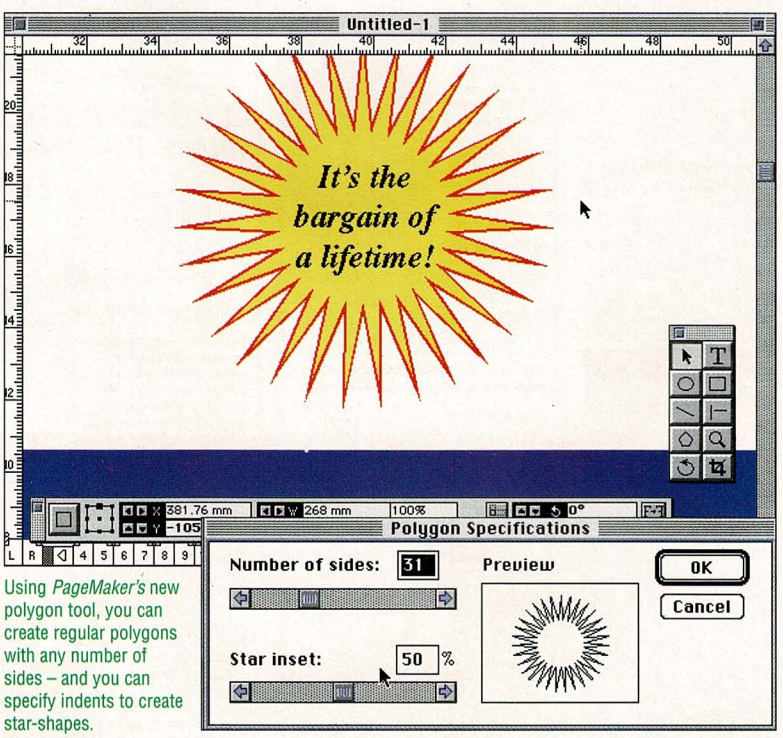
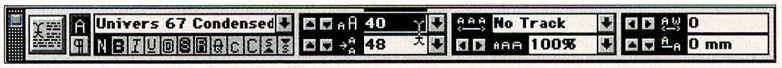
Enter FutureNet
future

With *PageMaker 6's* new masking tool, you can create a shape (in this case a rectangle) to mask out unwanted areas of pictures. It also works with text blocks, though why you'd want to mask out areas of text is a mystery. It would be more useful still if there was an irregular polygon tool.

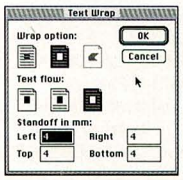




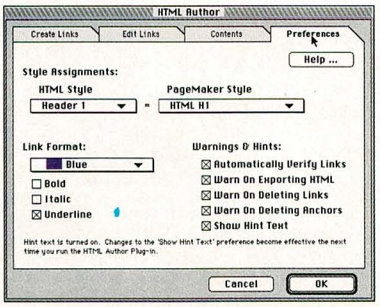
Using *PageMaker's* new polygon tool, you can create regular polygons with any number of sides – and you can specify indents to create star-shapes.



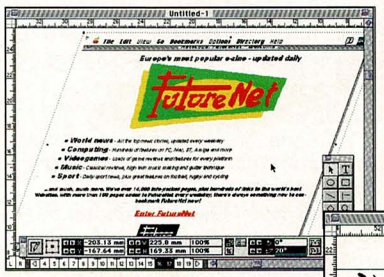
This is *PageMaker's* Control Palette. With every new incarnation, *PageMaker* and its arch-rival *QuarkXPress* look more and more alike, and they also move together in terms of functions.

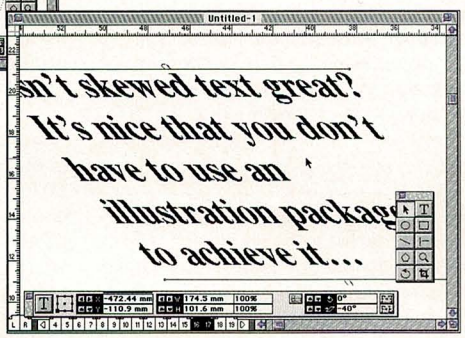


Text can be made to wrap around pictures in a variety of ways – including both sides *(QuarkXPress*, please take note).



With *PageMaker 6*, you don't need to buy a dedicated HTML editor to publish Web pages. This is about as easy as it gets.

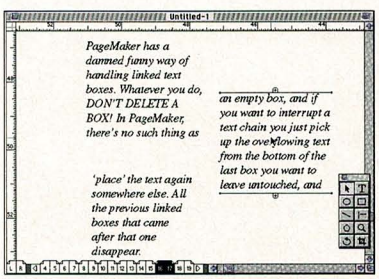




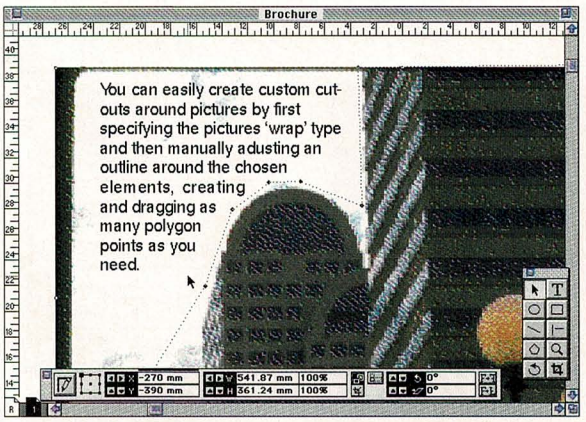
The new *PageMaker* enables you to reflect (horizontally and vertically) and skew both graphics and text blocks – and you can still edit the text.

duce glossy newsstand magazines, and then some. Book publishers should take note too, because it can automate the production of tables of contents and indexes. It can also link a series of documents into a 'book' and add page numbers automatically.

PageMaker 6 has two new features that make it much better at handling colour: trapping and calibrated colour management. Trapping has evolved as a response to the problems caused by four-colour printing, which involves precisely aligning four different images from four different plates. This alignment is seldom perfect, resulting in misregistration – gaps between two colours that should meet – or unpredictable results where one colour accidentally overlaps another. *PageMaker's* trapping effects enable you to minimise these effects, and are explained clearly in the manual. Its new colour calibration features, meanwhile, help overcome problems caused by different devices having different colour characteristics. For example, a scanner distorts the actual colours of the object scanned; your monitor then changes the colours when it displays the scans; and the CMYK printing process further shifts the colour balance – so the colours you finally get back on the printed pages can be very different from those in the original image or object. *PageMaker's* CMS (Colour Management System) aims to reduce these colour changes by ensuring that what you see on your screen looks like what you will get from your printer. It does this using 'colour profiles' for each device in the chain. A Kodak CMS is provided, but you can also get colour profiles for your own scanner, monitor and colour proofer.


Untitled-1
PageMaker has a damned funny way of handling linked text boxes. Whatever you do, DON'T DELETE A BOX! In PageMaker, there's no such thing as
'place' the text again somewhere else. All the previous linked boxes that came after that one disappear.
an empty box, and if you want to interrupt a text chain you just pick up the overflowing text from the bottom of the last box you want to leave untouched, and

PageMaker has a worrying way of handling linked text blocks. Never, ever delete one of the blocks, or you will lose its text forever. Instead, you must pick up the overflow from one of the boxes and place it in a new location, if you want to modify the chain of blocks. There's also no graphical indication of the links between boxes. Hmm.


Brochure
You can easily create custom cut-outs around pictures by first specifying the pictures 'wrap' type and then manually adusting an outline around the chosen elements, creating and dragging as many polygon points as you need.

It's easy to create irregular outlines around parts of graphics to create custom text-wrapping.

For designers who are used to relying on judgement, luck and colour swatches to predict the hues of the end result, this is a welcome addition.

Improved printing features

If you work on pages larger than A4 in size, but usually output proofs on A4 printers, you used to have to use trial and error to find the optimum percentage to scale pages down. *PageMaker 6* offers a Print to Fit feature that finds this optimum percentage for you. You can also preview your printout to see how it will fall on the paper, and you can check that the printers' trim marks will print too.

If you regularly output to different printers or output single pages, spreads and separations at varying magnifications, then you're probably tired of typing in half a dozen new print options every time. *PageMaker's* Print Styles feature saves print settings and displays them in a handy sub-menu attached to the Print command on the File menu. A simple and useful idea.

Another significant feature (and one *QuarkXPress* doesn't offer) is that *PageMaker 6* includes the ability to print

QUARK CONVERTER

Adobe have included the ability to covert *Quark* documents into *PageMaker* files. Don't expect it to work on every *QuarkXPress* document, though, because they often contain elements the converter can't handle.

TWO FOR ONE

If Adobe can sell a package that installs on both PowerMacs and 680x0-based (standard) Macs, why can't Quark?

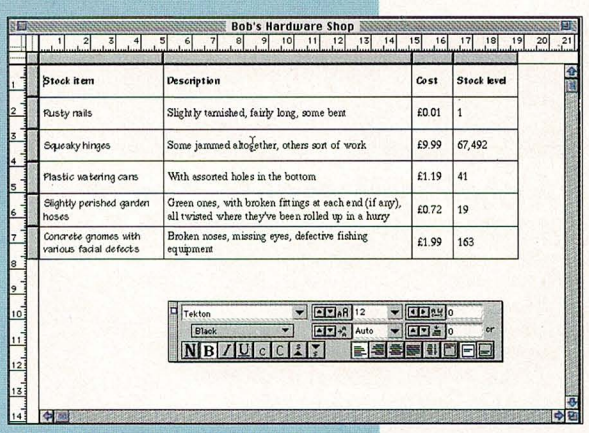
Continued on next page

ADOBE TABLE

Adobe Table is a separate application that, perhaps somewhat obviously, enables you to create tables. These are similar to spreadsheet documents, in that you enter information in a rigid row, column and cell form. Like spreadsheets, you can change the width of columns by dragging on the dividing line between them, and you can also make global changes to column or row styles by clicking on the corresponding areas on the axis bars.

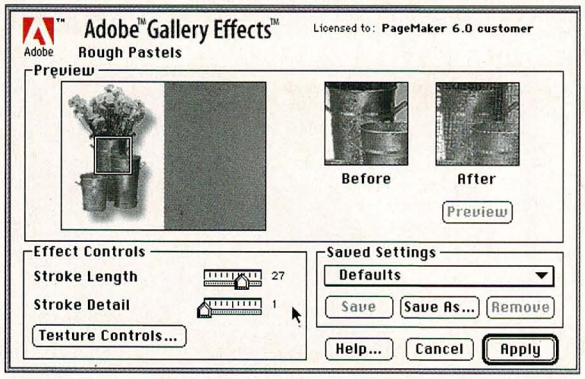
Once you've created your table, you can import it into your *PageMaker* document – and you can even set up a live link, so that changes you make to the original table are reflected in the embedded one.

Adobe Table is extremely useful if a lot of your work involves tables of data, and it's much easier than messing about with tab stops.

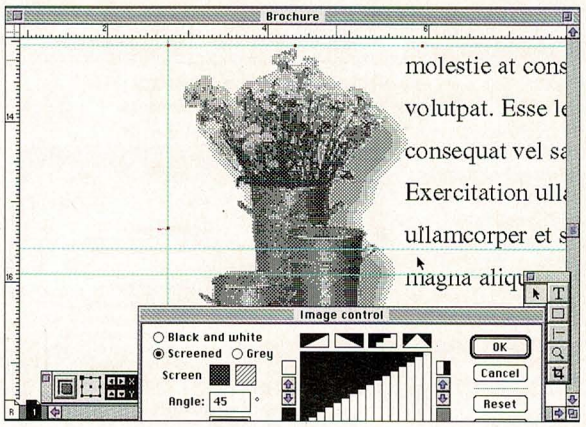


Stock item	Description	Cost	Stock level
Rusty nails	Slightly tarnished, fairly long, some bent	£0.01	1
Squeaky hinges	Some jammed altogether, others sort of work	£9.99	67,492
Plastic watering cans	With assorted holes in the bottom	£1.19	41
Slightly perished garden hoses	Green ones, with broken fittings at each end (if any), all twisted where they've been rolled up in a hurry	£0.72	19
Concrete gnomes with various facial defects	Broken noses, missing eyes, defective fishing equipment	£1.99	163

Adobe Table is a separate utility that makes creating and editing complex tables easy.



Excellent – *Photoshop*-style effects from within *PageMaker*. Modified graphics can be saved out using different filenames from the original.



You can adjust the contrast, brightness and screening values of imported TIFFs. Many of *PageMaker 6's* useful new features are supplied as 'plug-ins' – expect to see more from Adobe and other sources.

LOOKING BACK

PageMaker 6 can save documents in *PageMaker 5* format, which is excellent news for groups working with different versions of the application. Some non-cynical software publishing at last!

QUARK

If you want to know more about *PageMaker's* big rival, *QuarkXPress*, you can give Quark a call on 01483 451818.

ENDLESS ADD-ONS?

PageMaker's plug-in system is similar to *QuarkXPress'* XTensions. Both systems enable publishers and third-party suppliers to produce modules that extend the basic software's features.

pages in 'signatures' ready for web-offset printing. This means your printing house doesn't have to employ people to spend hours assembling individual pages into sections ready for plate-making, and it saves your output bureau buying separate specialist applications to do the same job.

PageMaker 6 offers other, less spectacular improvements which make life much easier, but tend to be things *XPress* users take for granted. For example, you can now have more than one master page per document, and they're easy to create, edit and apply to existing pages. You can even make an existing page into a master page – more than *XPress* can do. Other nice touches include the File menu listing recently-used documents, and palettes reappearing where you last left them, rather than in their default positions.

Long overdue options include a polygon-creating tool, the ability to move overlapping items forwards and backwards in the stacking order, and Group and Lock Elements functions. In addition, a new masking option enables you to create masks in any shape to crop both images and text.

Lastly, you can incorporate 'non-printing' objects in your layouts. This is useful for explaining layouts to co-workers, leaving notes, and reminding yourself what's left to be done. You can have these items visible or invisible on the page, so they needn't interfere with your view of the page when you're laying everything out.

World domination

You might have noticed how the Internet seems to be taking over the world. *PageMaker 6* incorporates plug-in tools for creating Web pages and links. It also explains the whole process clearly and simply enough to guide even a novice through producing a half-decent Web page.

PageMaker 6 also includes Adobe's *Acrobat Distiller* package, with which you can create PDF (portable document format) files that anyone with *Acrobat Reader* can read. *Acrobat Reader* comes as part of the *Distiller* package, and is particularly useful if you want to download material from the World Wide Web – there's also a fully working version of it on issue 31's Cover CD. *Distiller* is the equivalent to *Acrobat Pro*, which retails at around £419 (there's no RRP, so prices vary between distributors), so to get it included with *PageMaker* is a real bargain. Not only that, *Distiller* is so smoothly integrated that you can set up and create *Acrobat* documents without having to quit *PageMaker*.

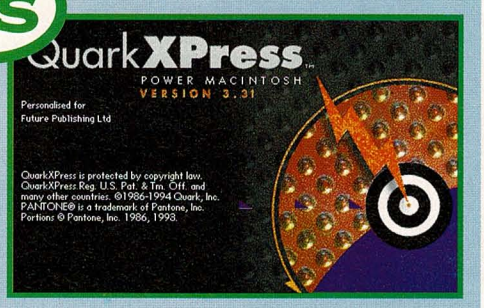
Worth the effort?

If you're considering buying your first DTP program, *PageMaker 6* is a good choice. It's a lot cheaper than *QuarkXPress*, the latest version of which retails at £895. While it doesn't have the same kudos within the publishing industry, it can do just about everything *XPress* can and comes with lots of great extras – in particular *Acrobat Distiller* and HTML output.

If you already have *PageMaker* and you're happy with the version you have, fair enough, but the upgrade price is a real bargain. Many facets of the program have been made slicker and more efficient, not to mention the additional tools and add-ons. At this price it's too good to miss out on. **MF**

PAGEMAKER VS QUARKXPRESS

VS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PageMaker and *QuarkXPress* have been at war for several years – ever since the high-end DTP market narrowed down to these two. So which is better? With the release of *PageMaker 6*, there's now very little *QuarkXPress* offers that *PageMaker* doesn't. The biggest differences are in how they look and feel: *XPress* functions lead you towards more rigid, structured designs; *PageMaker* is much better at freeform, on-the-fly designs. It's only with the latest version that *PageMaker* has started to boast some of the tools and text controls that have been available to *QuarkXPress* users for some time, but the result is more comprehensible and user-friendly.

However, *XPress* uses just 1.6Mb of RAM, whereas *PageMaker* needs 6Mb of free RAM. *XPress* is better at text-handling, feels a little quicker and, while it's rigid and ordered, it's recognised as the publishing industry standard for DTP software. This may prove the most important factor in your decision.

PAGEMAKER 6

Price: no RRP – about £470, or upgrade for about £117. **Out:** now.
Requires: LCIII or better, 8Mb of free RAM (10Mb for PowerMac), System 7.1 or later, 20 to 40 Mb hard disk space.
Contact: Adobe on 0181 606 4000.

FEATURES 91%
It's hard to spot what it doesn't do. There's no word count, though, and the Story Editor seems slightly superfluous.

EASE OF USE 86%
First-time users will have no problems, although handling text takes a bit of getting used to.

DOCUMENTATION 93%
Concise and friendly, and lots of background information on printing processes to put it all into perspective.

VALUE FOR MONEY 93%
Professional DTP, HTML and Acrobat publishing, all for little more than half the price of *QuarkXPress*. Be warned, though, *PageMaker* is hardware hungry.

MACFORMAT RATING 91%

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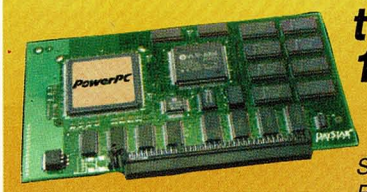

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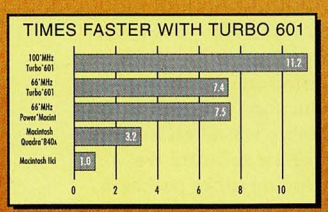

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THUNDERCACHE	68030 32MHZ/FPU	LC,CLII,C.CI	240%	£190
QUADBOOSTER	68040 40MHZ	Centris 610	200%	£350
QUADBOOSTER	68040 50MHZ	Quadras	200%	£499
LC/LCII SPEED	68030 32MHz	LC,LCII	40%	£90
SIMMdoubler	Doubles slots	30 & 72pin		£80
SIMMconverter	30pin into 72pin Macs	72pin Macs		£80
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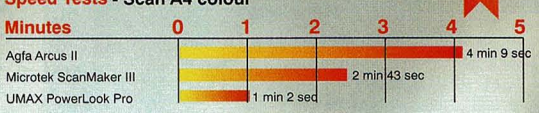
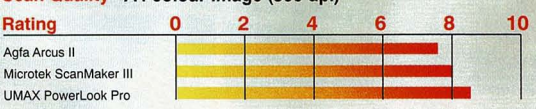


Scan Quality - A4 colour image (300 dpi)



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PowerMac 6100/60 DOS Compatible

A combination of a PowerMac and an IBM-compatible PC, in one case. Find out how well this mongrel Mac can cope with its split personality.

OTHER OPTIONS

There is a DOS card available for £487.63 from Apple that can be added to a PowerMac 6100. Contact Apple on 0800 127753. Orange Micro also have an OrangePC card that enables you to run DOS, Windows and Windows 95 software on your Mac or PowerMac. Prices vary, according to what Mac you have and how much RAM you want, between £1,002 and £3,621. Contact Principal on 01706 832000 for details.

Apple's latest bid to capture a portion of the lucrative PC market comes in the form of this hybrid machine. The 6100/60 DOS Compatible is a true convertible, operating as a mid-range PowerMac and PC simultaneously.

The technical teams at Apple have realised that, while software emulation of another computer is an option, for real speed and full compatibility a hardware solution is your best bet. If you look inside the PowerMac 6100 DOS Compatible, you'll find an entire 80486 based PC on a board occupying the only expansion slot.

Including a PC inside a PowerMac case has some obvious advantages. You get two computers in the space of one, which is significant if you operate from a small office or home, and the computers can use the same peripherals, saving you money on hardware.

Everything boots exactly as you'd expect from a Mac – the only visible difference is the PC Disk icon on the Desktop. To work in Windows or DOS, you hit the **[command] [return]** keys to toggle between modes. The first time you switch to PC mode you're given four options: DOS, Windows, Conventional Memory Boosted DOS or Expanded Memory Boosted DOS. The latter two are important if you want to play any games – PCs are notoriously awkward when it comes to memory management, and these two will save you time and effort.

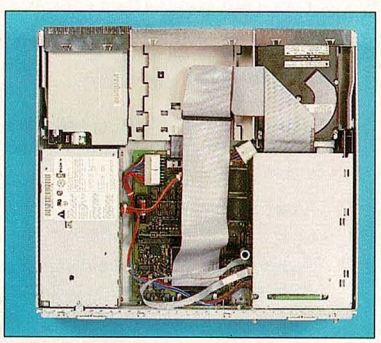
In testing, the DOS portion of the PowerMac operated like any 486 PC. The machine comes preconfigured, with DOS and Windows 3.11 already installed. DOS boots exactly as normal, using standard autoexec.bat and config.sys batch files to load all the appropriate drivers into memory.

Using Windows 3.11 is no different from any other PC. All the usual utilities and applications work as they should – but they *are* running on a real 486 DX/2 PC. Better still, the hardware setup enables you to use your standard Mac CD-ROM drive, hard drive and floppy disk drive in PC mode. These work in both Mac and PC modes and can use the hard drive at the same time with no apparent speed or compatibility clashes. You can also use any current Mac monitors or selected VGA and SuperVGA PC monitors – in fact you can run a Mac and a PC monitor at the same time.

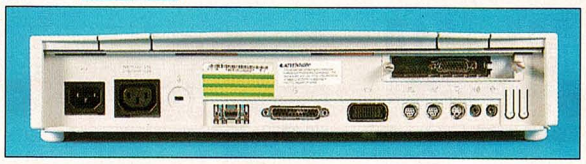
One of the most interesting aspects of the DOS Compatible is that it offers real multitasking. With two computers running at the same time within one case, you can leave one to deal with a task (such as rendering) while you use the other for something like word processing. And when you change modes, the clipboards are copied over between computers, so you can cut text in your PC word processor, change modes, start your Mac word processor and paste the PC text in.

The 486 performs impressively. Using benchmark software, we compared it to an IBM 486 PS/2. In the graphics tests it was about 10% faster on every section. Hard drive read/write speeds unfortunately showed a 10% speed reduction compared to the PS/2. Compatibility wasn't an issue – it coped with all of the software we threw at it, including tricky packages like *Doom 2*, *SoftRAM 95*, *Windows 95*, *Microsoft Office 95* and *WordPerfect 6.1*. As for having enough memory to cope with all your software, the PowerMac board can be upgraded to 72Mb of RAM, while the DOS card can be upgraded to 32Mb.

The fluid transition between Mac and PC is impressive. Apple have clearly spent a lot of time getting the hardware right, and when you start pushing the system hard this shows. Whether in DOS or Windows mode, everything works as expected, without a hitch. It doesn't quite offer two computers for the price of one, but it's close. Another must-have Macintosh – especially if you're longing to play *Ultima Underworld*. ANDY HUTCHINSON



Inside the DOS Compatible looks pretty much the same as an ordinary Mac. The DOS card is under the metal plate at the bottom right.



Not only can you run DOS, Windows and Windows 95 software, but a knock out panel on the back right of the Mac enables you to connect a second monitor.

6100/60 DOS COMPATIBLE

Price: £1,875. **Out:** now.
Price includes: 8Mb of RAM, 300Mb of hard disk space (shared between PC and Mac), MS-DOS 6.22, Windows 3.11.
Contact: Apple on 0800 127753.

FEATURES 85%
This feature-heavy Mac is at ease in both the Mac and PC worlds. Shame Windows 95 wasn't preinstalled, though.

EASE OF USE 90%
One key combination and you're in PC mode. If it was any easier it would read your mind and do it automatically.

DOCUMENTATION 89%
The usual high quality Mac manuals, but with the added spice of tedious DOS and Windows blurb too.

VALUE FOR MONEY 88%
Not quite two for the price of one, but not far off. You save on the cost of peripherals and desk real estate too.

MACFORMAT RATING 89%

The Mac Zone™ United Kingdom

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- Kodak PhotoCD Utilities and Images
- Straight Talk Papers, TechNotes, and Tips and Tricks
- Interactive Presentation
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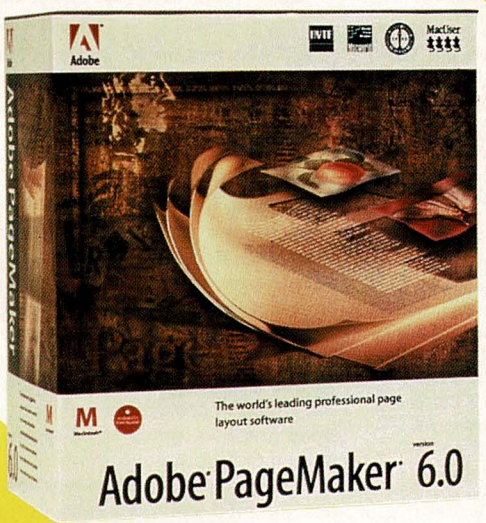
- Adobe Type Manager



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Photoshop 3 Bible

GET 'EM

If you have any problems getting hold of any of these books from your local bookshop or Mac supplier, they are all stocked by Computer Generation – call them on 0171 937 8777.

The *Photoshop Bible* is not to be read in one sitting: it is a book for moments of crisis and desperation, or when the need for inspiration weighs heavy. It does have its lighter moments, but the humour is decidedly American – although nowhere near as painful as that of *The Complete Idiot's Guide to Photoshop*. Like the Holy Bible, though, the *Photoshop Bible* is huge. Just about every aspect of the program is covered, from the basics of bitmap painting to the complexities of channel operations and the Filter Factory, all in intense detail.

The book is structured in a similar way to MACFORMAT's image editing series. Part one of the book covers *Photoshop* fundamentals – the basics of bitmap and image editing, colour, file formats, channels and printing. Part two examines retouching; part three looks at special effects; and part four covers every aspect of corrections and composites. It includes several appendices, and a large and well-cross-referenced index. As you might imagine in a book on image editing, there are many informative illustrations, though all are in black and white except for 32 colour plates in the centre.

This is the perfect reference work, anticipating virtually every question you might have and giving lots of ways to find the answer – but visually it isn't much inspiration. The emphasis is mostly on describing and exploring every tool, and less on achieving particular end results or overall images – there are few complete tutorials and even fewer examples of people's work. On the accompanying CD, however, are lots of images – some from royalty-free photo collections and some created by fine art and commercial illustrators using *Photoshop*. But there are still no tutorials – it would have been nice to be talked through even just a few of the professional examples. The *Photoshop Bible* never sets out to be a tutorial guide to *Photoshop*, though, and if you are looking for a reference work that takes you beyond the official manuals, explaining *Photoshop* completely but with a lightness of touch, look no further. **BRIAN LARKMAN**

The Complete Idiot's Guide

LEARN ON CD

You can also learn to use all sorts of software using the *Quay 2* training disc series. Most of them cost £99, and they cover a range of DTP, graphics, word processing and productivity software. If you prefer to try before you buy, you can rent the CDs from Computer Generation – the cost is £25 for one week's rental, and £40 for two weeks. Give them a call on 0171 937 8777.

The first 'idiot's guide' I ever used was an American produced handbook for the Volkswagen Beetle. I thought I knew a lot about cars, but it was a brilliant help despite the patronising tone. It told the real truth about what a pig certain parts were to remove, describing everything in simple terms, avoiding the confused jargon of the regular handbooks. *The Complete Idiot's Guide to Photoshop* is quite similar, using feeble humour and simple statements to demystify the jargon of computers and computer graphics, while actually covering a lot of ground.

The book is divided into 30 chapters, grouped into seven sections: basics, selections, colour, adjustment, filters, printing, and troubleshooting. It has both an 'At A Glance' contents and a highly detailed main contents, plus a reasonable index and a good simple glossary. Each chapter ends with a 'The Least You Need To Know' summary. There is no colour, except for the cover, and the pictures are relatively poor. It is, in short, a book to read rather than to be inspired by. If you know nothing about computers or paint programs it will get you up to speed with what is really a very complex program faster than the official handbook – provided you can stand the humour.

Accompanying the book is a seedy thing (sorry, a CD thing) that contains about 40 rather mundane landscape images, a couple of fonts, some demo software and a set of tutorials. The latter are really the most useful thing – and for some tasks this is the best way to learn. The Stamp tutorial is particularly useful, and manages to save a thousand words describing how the tool should be used.

If you have been using *Photoshop* for a while and are not sure what to do with it, this is not the book for you – try *The Photoshop Wow! Book* for lots of inspiration. If you want a complete guide try the *Photoshop 3 Bible*. But if you need to use *Photoshop*, and you don't know your antialiasing from your Auntie Ada, *The Idiot's Guide* is the book for you. **BRIAN LARKMAN**

Photoshop 3 Wow! Book

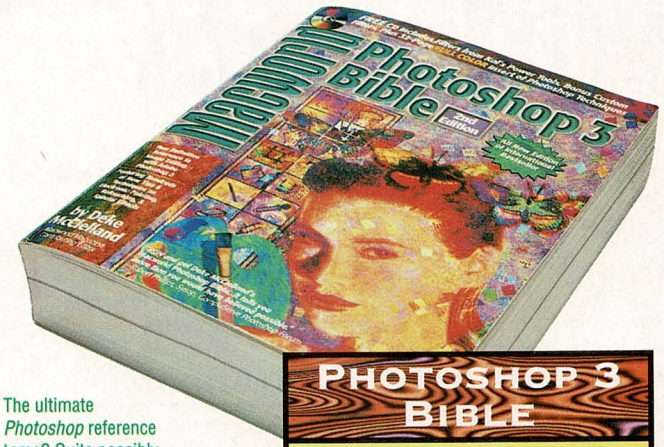
Wow! indeed. Unlike most computer-related books, the *Photoshop 3 Wow! Book* comes in full colour, boasts a busy, magazine-style layout and is crammed with walkthrough sequences, technical boxouts and friendly explanations.

Which is just the treatment *Photoshop* needs. It's the premier Mac image manipulation program and its staggering range of features and functions is matched only by its daunting complexity. To be fair, *Photoshop* is about as simple to use as it could be, given all the things it does, but it's still not an easy program to get the best from. The latest version of the *Photoshop 3 Wow! Book* explains *Photoshop's* functions clearly, and concentrates on step-by-step instructions showing how to carry them out. These are all accompanied by screenshots of the changes happening to the images and of the palette and dialogue options you'll be using.

It does more than demystify *Photoshop*, though. The images used as examples are of staggering quality, and the *Wow! Book* is just as useful as a source book for designers as it is an instruction book for less experienced users. After flicking through this book you'll wonder if there's anything *Photoshop* can't do, and you're bound to be just itching to try some of the techniques for yourself.

As if all that wasn't enough, you get a CD-ROM too. This contains special effects and patterns, exercises, lighting effects, animations and more than 200 stock photos. There are also many filters and filter demos, as well as 'try-out' versions of half a dozen other Adobe products.

The *Photoshop 3 Wow! Book* is updated from the original best-selling title, and is even bigger, better and brighter. It's an essential buy for any professional *Photoshop* user – it doesn't just show you how to do things in *Photoshop*, it opens your eyes to just what this program is capable of. **ROD LAWTON**



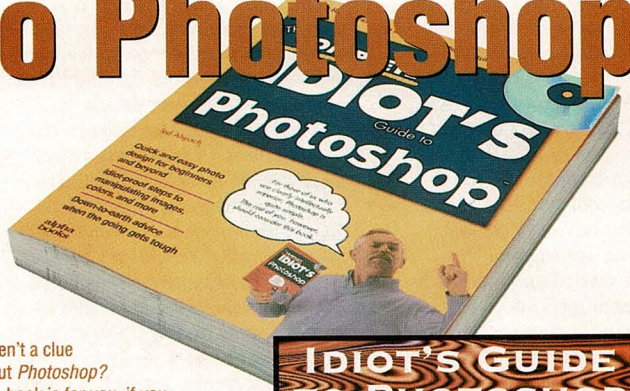
The ultimate *Photoshop* reference tome? Quite possibly.

PHOTOSHOP 3 BIBLE

Price: £38.99. **By:** Deke McClelland.
Publisher: IDG Books Worldwide Inc.
ISBN: 1-56884-158-2.

MACFORMAT RATING **85%**

to Photoshop

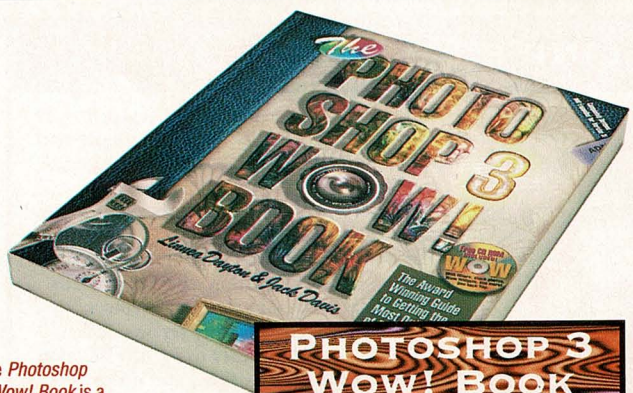


Haven't a clue about *Photoshop?* This book is for you, if you can stand the humour.

IDIOT'S GUIDE TO PHOTOSHOP

Price: £33.99. **By:** Ted Alspach.
Publisher: Alpha Books
ISBN: 1-56761-527-9.

MACFORMAT RATING **71%**



The *Photoshop 3 Wow! Book* is a source of inspiration for *Photoshop* users everywhere

PHOTOSHOP 3 WOW! BOOK

Price: £32.95.
By: Linnea Dayton & Jack Davis.
Publisher: Peachpit Press.
ISBN: 1-56609-178-0.

MACFORMAT RATING **95%**

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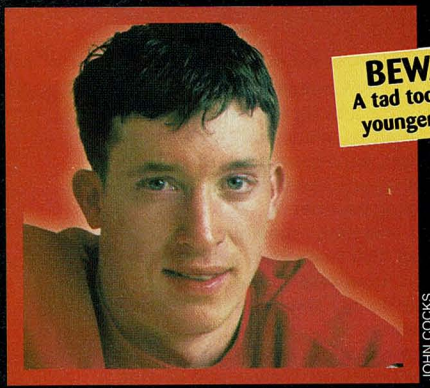


BEWARE! A tad too rude for younger readers

JOHN COCKS

ISSUE 4 OUT NOW

TOTAL FOOTBALL

http://www.futurenet.co.uk/outdoors/totalfootball.html

The C•A•T's whiskers

Can a single relational database make your frantic working life easier? Rod Lawton tries to create order among his faxes, phone calls, letters, invoices...

Last issue's round-up of Personal Information Managers highlighted the ways in which your Mac can help you organise your personal life. But what about your business affairs? As a business user, you might need more than a fancy electronic diary. You need an information manager that can store thousands of records and still locate individual contacts quickly, as well as log conversations, track projects and print a variety of reports, invoices and estimates, all without leaving the application or creating additional external files which can get moved or lost.

C•A•T is a specialised database designed to act as an information management program for businesses. It's been around for years, but is undergoing something of a renaissance, with version 4 being launched at a new, much lower price.

Try C•A•T for yourself with the time-limited version on the Cover CD

Document management

If you are self-employed or manage the day-to-day customer-related administration of your company, you'll be creating, storing and retrieving a wide range of documents. For proposals, estimates, faxes and correspondence, reports and even invoices you'll need a word processor at least, and probably a spreadsheet, while for contact details and mail-outs you'll also need a database.

Software like *ClarisWorks*, which comes bundled with most Macs, is more than capable of handling each of these tasks. But even the best integrated office software suite isn't perfect. Information isn't easily cross-referenced – *ClarisWorks* can swap information between documents, but it's time-consuming and fiddly to set up. Then there's the fact that every time you create a new letter or send a fax, you clutter up your hard drive with yet another document. And the only way to find one of these documents later is to set up and use a carefully thought-out filing system. Every time you want to cross-check an estimate with an invoice, or a proposal against a phone conversation, you have to find and load two different documents.

C•A•T, on the other hand, combines the roles of spreadsheets and word processors, offering sophisticated design tools that enable you to create any number of specialised report templates, which can handle spreadsheet-like calculations at the same time. These templates are the key to *C•A•T*. You could, for example, generate a template that lists all customers with outstanding invoices. You could generate a report of all work currently in progress and the stage it's reached. You could design a form for invoices that automatically calculates and adds VAT... the list is endless.

Like any database worth its salt, *C•A•T* offers different layouts – meaning that you can view your data in as much or as little detail you like, in whatever format you prefer.

It's all relative

C•A•T can achieve all this because at its heart is a relational database system. In card-file databases *(ClarisWorks* included), each database file consists of a number of individual records, and each record contains the information for that contact. This means that if you set up another database file containing, say, invoices you've sent out, the customer details are duplicated. That means that when your customer moves, and you update your records, you have to do it twice. If you have many more database files, all containing customer details, it becomes more than a nuisance – the system is bound to fall down, either because people can't be bothered to update each and every reference to that customer, or because they don't know where all these references are.

A relational database avoids these problems by extracting data such as customer details from a single contacts file, regardless of how many new database files you create. Instead of typing the information into new records, you reference the existing database file. That way, there's only one set of contact details per contact, and when it's updated in that one file, it's updated everywhere else.

This relational approach can be applied to any information – so you can assemble that monthly report for

GET IN STEP

Many database-type applications – including *C•A•T* – enable you to synchronise files. Two users working with copies of the same file will end up with slightly different versions; the synchronisation feature compares the data in each, updates old data with new and makes sure the current information is present in both files. After synchronisation, both files are identical and up to date.

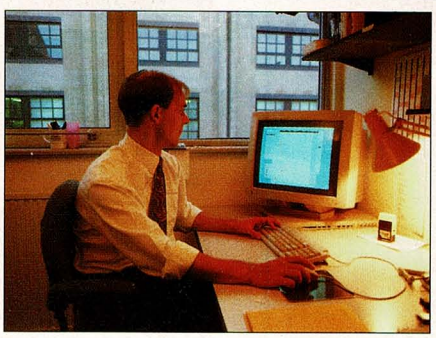
CASE STUDY: BASELINE'S SHIFT

Baseline is a design company in Bath that handles multiple jobs for one or more individuals in 50 different companies. Each job entails invoices, correspondence, phone calls, management reports and other involved and time-consuming paperwork.

At least, it was time-consuming when Baseline used their traditional paper-based reporting and filing system. Moving over to *C•A•T* 18 months ago revolutionised the company's operations.

Nick Wood is one of a small team handling the company's customer liaison, and he took time out to demonstrate how Baseline have used *C•A•T* to automate, clean up and properly record all their activities.

But was it hard to set up? No. The program's template design tools were easy to master and enabled them to create any document they needed, from elegant, design-conscious letters to complex invoices, to detailed management reports. And, of course, all the information was cross-referenced.

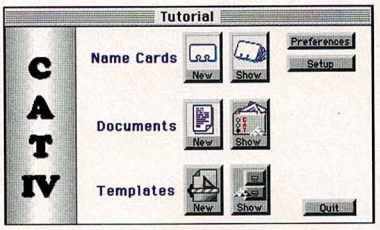


Nick Wood of Baseline shows how C•A•T lets him create custom templates for practically any purpose.

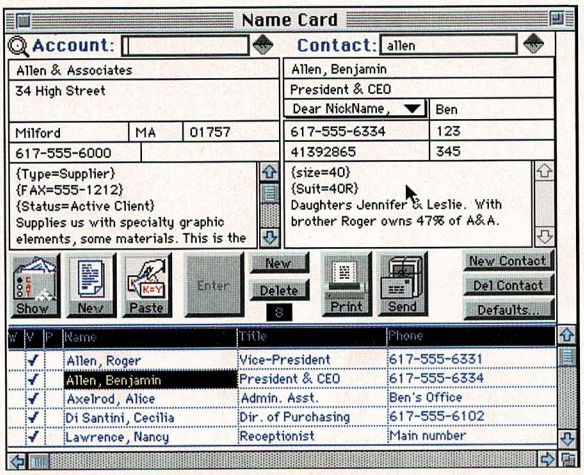
But didn't it take unusual discipline to maintain the customer records religiously? No – indeed it was quicker and easier than the old system. And anyway, you simply had to develop that discipline in the first place, even with an old-fashioned paper-based filing system, if you wanted your company to run efficiently.

So what are the main benefits? Instant recall of client information, accurate records of conversations, estimates and invoices, rapid generation of financial reports and projections and the ability to rapidly develop new templates for new tasks and needs.

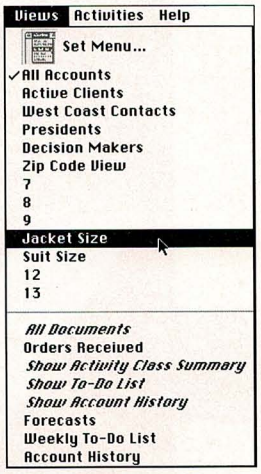
Has it been a success? Without a doubt. Nick Wood is as enthusiastic a proponent of *C•A•T* as the UK distributors of the program, Can Do. He showed us a positively bewildering array of purpose-built templates that combined sophisticated database reporting functions with automatic spreadsheet-style calculations and the design finesse of a medium-powered DTP application.



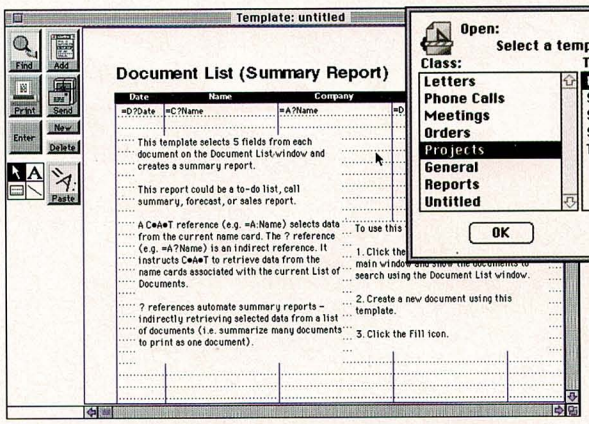
This is *C•A•T's* front-end. From here you can update your contacts list, create documents and work with your templates.

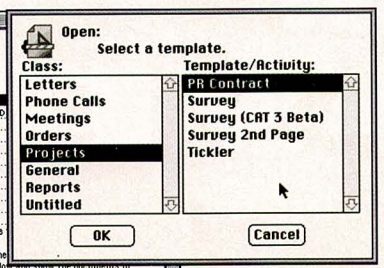


This is a new contact card (the display also shows contacts in list form). It's not as complex as it looks. Not quite.

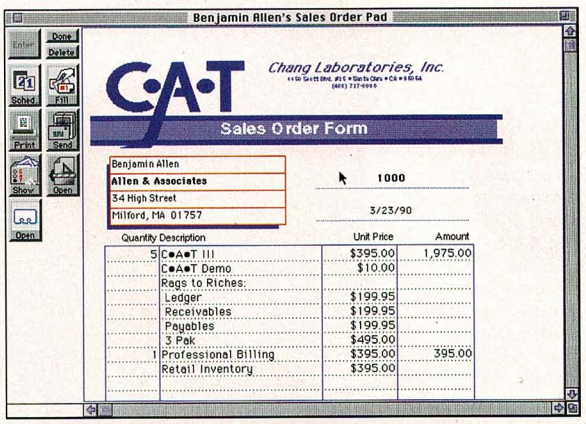


C•A•T's menus are designed to be quickly and easily customised, so the templates and views you use most often are quickly accessible.


Template: untitled
Find
Add
Print
Send
Enter
New
Delete
Paste
Document List (Summary Report)
Date
Name
Company
=D?Date
=C?Name
=A?Name
This template selects 5 fields from each document on the Document List window and creates a summary report.
This report could be a to-do list, call summary, forecast, or sales report.
A C•A•T reference (e.g. =A:Name) selects data from the current name card. The ? reference (e.g. =A?Name) is an indirect reference. It instructs C•A•T to retrieve data from the name cards associated with the current List of Documents.
? references automate summary reports – indirectly retrieving selected data from a list of documents (i.e. summarize many documents to print as one document).
To use this
1. Click the
2. Create a new document using this template.
3. Click the Fill icon.

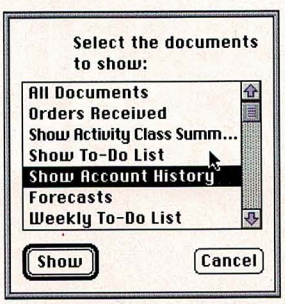


You can create your own templates as well as those supplied. Can Do are also planning custom template sets for specific professions.

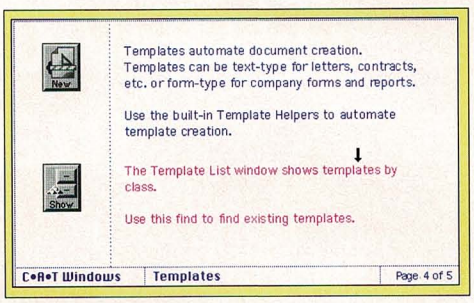


C•A•T comes with a number of pre-defined templates. You can also create your own using text, imported graphics, data pulled in from your clients' records and calculation fields.

From the listing of documents relating to a single contact you can double-click on the document to view it.



You can view all the documents you've created relating to individual clients. You can also view them by category (faxes, orders and so on).


New
Show
Templates automate document creation. Templates can be text-type for letters, contracts, etc. or form-type for company forms and reports.
Use the built-in Template Helpers to automate template creation.
The Template List window shows templates by class.
Use this find to find existing templates.
C•A•T Windows
Templates
Page 4 of 5

C•A•T comes with on-line help and a manual, but neither really do justice to the program's slickness or potential. The learning curve is quite steep.

your boss straight from the invoicing information that is held in other files. This makes admin much faster and much more reliable.

So does it work?

You only need to look at the case study on these pages for evidence that *C•A•T* is a formidably powerful contacts manager, and is perfectly capable of managing an entire client servicing operation, including correspondence, faxes, project notes, phone calls and invoices. Although it doesn't give this impression straightaway, it's a highly professional package – it is perhaps let down slightly by the fact that it's missing a few graphical niceties, and the slimness of its documentation doesn't quite prepare you for the complexity of the system.

Apart from its powerful template-creating tools and slick relational data handling, *C•A•T* offers some unexpected bonuses. It's fast. Very fast. It comes on a single floppy, and it uses only 1.5Mb of RAM. All client information, correspondence, reports, transcripts of conversations and the rest are held in a single file, but this isn't necessarily as large as you'd expect – Baseline's huge range of client information and correspondence still only takes up a few megabytes.

C•A•T 4 doesn't come particularly cheap at £222 for a single-user licence, but it becomes more cost-effective as you buy multiple-user setups. An enhanced network version of the software has also been released – *CATnet* can automatically synchronise files held on different machines so that all users have current information, and vital client files are never lost even if a machine goes down with an irrecoverable hard disk crash. *CATnet* starts at £1,174 for a three-user licence, and upgrade offers are available for existing *C•A•T* users.

You'll need to be technically competent to set up and fully exploit the whole system, but once that's done it's a highly effective solution. **MF**

C•A•T

Price: Single-user licence £222; five-user pack £821; ten-user pack £1,174.
Out: now.
Requires: any Mac, 2Mb of free RAM.
Contact: Can Do on 01452 527603

FEATURES 84%
Missing a few graphical niceties but immense inbuilt flexibility and power.

EASE OF USE 68%
Steep learning curve, but then, it's a large and complex package.

DOCUMENTATION 58%
A thicker manual would be a big help, particularly in setting up system.

VALUE FOR MONEY 89%
Expensive, but then it is perfectly capable of running an entire client servicing operation.

MACFORMAT RATING 81%

DO IT YOURSELF

It's possible to mirror some of the advanced layouts and reports of a program like *C•A•T* using *ClarisWorks*. Tune in next time to find out how.

EDGE

Hip or hype?

The videogame **marketing** war

Voted **Magazine of the year**

NZIN Industry awards

Issue **twenty-eight** onsale
8 December at selected newsagents

Maths Workshop

A CD-ROM that makes maths fun? Its makers say your child's number skills will improve, but are they adding two and two to get five?

Maths? Yeurrgh! Surely everyone hates maths, so anything that can actually encourage your child to do sums can't be bad. *Maths Workshop* helps you figure out maths by inviting you to play games and do activities based on numbers and logic.

MACFORMAT Classic

Your cartoon hostess for this numerical mystery tour is Poly Gonzales, a young girl with an English accent that's positively extravagant. Given to saying 'ta-ta' a lot, Poly is an ingenious variation on American English. *Workshop* was made in America, but, unlike most of their cousins, publishers Brøderbund are making an effort to change the content of the CD-ROM so it's more appropriate for us.

Poly gets you to type in your name, then sets you loose to play in several places dotted around her Control Room. Most activities present a challenge – it's up to you to crack a problem. You can decide how difficult these games are by choosing one of three levels of difficulty, thereby maintaining the challenge as your child gets older. Even grown-ups should find some parts keep them occupied when you get to the top level.

The workings of each area are described in a thorough manual aimed at the child, with notes on its educational value in Parents' Corner passages. One book each for parent and child would have been a bonus, but the manual still does a good job.

Activities include the bowling alley, where you have to solve hundreds of sums to reach the top level. It's a simple test of adding-up sums under a time limit, which could have become tedious were it not for the careful variations in the animation, where Guy the Bowling Gorilla bowls down some pins each time you complete a round. The pins' battle to avoid getting knocked down reaches epic proportions as the game progresses, giving you the incentive to continue.

The Rhythm Shop teaches you about fractions (double yeurrgh) with the Fractionnaire 2000, a machine you use to divide a coloured block into bits and glue them back together if necessary. The challenge is to divide one big block into several smaller ones the same size as the one on the Fractionnaire's screen. Mastering the controls is a little complicated, but it doesn't half teach fractions.

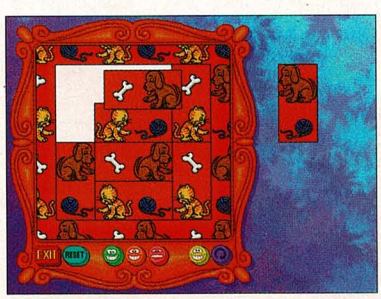
Other areas include the Super Sticklers, where you have to assemble line fragments to form a drawing, and the Pattern Windows, a selection of geometric patterns to colour in. These are less obviously mathematical, but in fact teach spatial awareness through working with pictures.

Plenty of incentive is offered to complete every activity. There are lots of rewards in the form of cartoons when you complete a task, and inventive touches and characters add a general air of child-pleasing mayhem as you play. The screen is rarely still or silent as you make your way around.

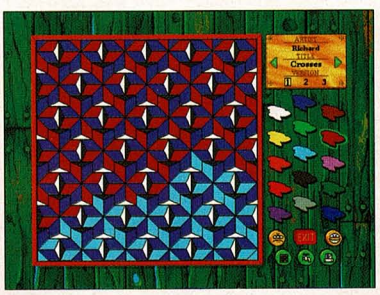
Genuinely interactive, *Maths Workshop* is one of those rare CD-ROMs where its designers have remembered that multimedia isn't something you watch; it's something you use. There's enough here at a good price to keep your child busy and interested for a good length of time.

RICHARD HILL

Maths Workshop is possibly the only software that can teach you about fractions and manage to be wacky at the same time.

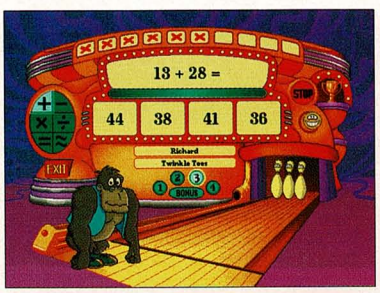


Awww! They may look cute, but this is more than a pretty picture. Matching up these tiles to complete the pattern is trickier than it looks.

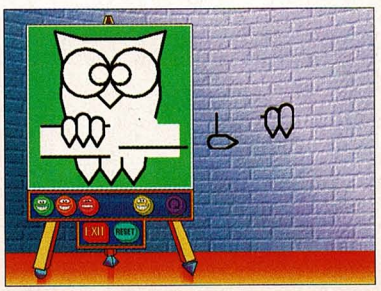


No pictures to colour in this time, but plenty of geometric patterns, so you can see how to make 3D shapes with colour.

Poly Gonzales (get it?) is your host through *Maths Workshop*, a fun way of learning about really scary things – like geometry.



Join Guy the Bowling Gorilla in the most competitive game of bowls ever – Guy versus the rather worried-looking pins.



You will find some reward in any task you complete: in the Stickler section, the drawings you assemble come to life and burst into colour.

MATHS WORKSHOP

Price: under £30. **Out:** now.
Age range: six to ten.
Requires: LCII or better, 2.5Mb of free RAM, System 7.0.1 or later, 12-inch 256-colour monitor, CD-ROM drive.
Contact: Brøderbund on 01429 273029.

MACFORMAT RATING 91%

Mr Wonder's Greatest Toyshop on Earth

Can old-fashioned storytelling, music and rhyme carry across to a CD-ROM? Enter this colourful toyshop and discover a mulit-faceted playground for your kids.

So many children's programs are produced in the United States, and, as good as some are, it's nice to find a title that feels authentically British. *Mr Wonder's Greatest Toyshop on Earth* evokes the distinctive charm, the mixture of menace and open-eyed awe, of stories such as *Charlie and the Chocolate Factory*.

Mr Wonder is a kindly old man who welcomes you into the brash, towering shop with a song and a dance just for you. And, like the costume hire shop in *Mr Benn*, inside you'll find lots of surprises.

The first delight is the way you can explore the shop with a moving landscape that works like a simple QuickTime VR setup. Move the cursor to the edge of the picture of the shop and you set it gliding round to reveal what lies in the corners. When you click on one of the many objects lying on the shelves, you'll either get a quick piece of animation or, more typically, a cry of 'Let's see what surprise is here!' as you're transported to another place.

There are all sorts of things to do. Unlike some other activity bundles *(Maths Workshop*, for example), there's no underlying theme to link these together. *Greatest Toyshop* caters for a child's insatiable appetite to investigate everything he sees, bounding from subject to subject.

So you'll find yourself dressing up a dolly for wet weather, putting the animals in the ark, or finding out how oil is extracted and processed. A living room holds a hi-fi and video recorder, each of which you can put tapes into and play. Some parts have a gleeful air of mischief, like the game where you find out which household items run on electricity by blowing them up.

Grimm Fairy Tales

The rewards for completing some tasks extend this idea further, presenting animated cautionary tales that follow the tradition of Punch and Judy – the threatening behaviour is turned into play, so it can be talked about and warned against. In the style of Hilaire Belloc's *Cautionary Tales* (remember Matilda?) there are stories of alligators eating up children and a boy who won't stop playing with electricity.

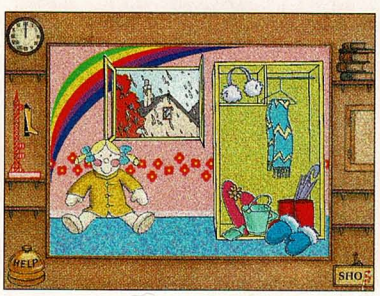
You can monitor your child's progress through the treasures on tap by checking a graph, which sets out in clear terms which parts he's completed. If *Greatest Toyshop* has one failing, it's that some parts are a lot more difficult than others, so young children will get stumped by guiding the boat through the swamp, while older kids will find other areas too simple for words. A difficulty setting such as in *Maths Workshop* would have been helpful, but if your children do get stuck, they can ring the bell for some helpful suggestions from Mr Wonder.

But this is a playground, not a school – it's not really a matter of succeeding or failing. What *Greatest Toyshop* offers is heart and invention, with the traditions of children's entertainment brought into the computer age unscathed. Even if some activities are beyond your kids' grasp at first, this is a disc that they will come back to. *Greatest Toyshop* is the kind of thing Roald Dahl might have dreamt up if he'd had the chance to experiment with multimedia.

RICHARD HILL

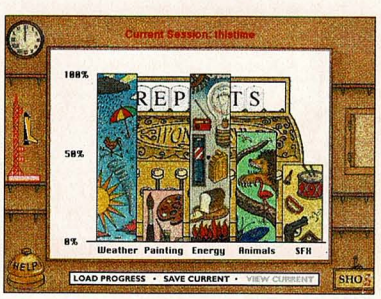
Mr Wonder tells tales of what happens to naughty children with a mischievous glee, using poetry and music.

There's lots to see and do in *Mr Wonder's Greatest Toyshop on Earth* – the space shuttle on the left is the volume control, by the way.



Dressing up your dolly for the wet weather is one of the easier things to do...

...while manoeuvring this boat through the swampland is one of the more frustrating.



You can monitor your child's progress by checking this graph whenever you like.

MR WONDER'S TOYSHOP

Price: £29.95. **Out:** now.
Age range: four to eight.
Requires: LCIII or better, 8Mb of RAM, System 6.0.1 or later, 13-inch, 256-colour monitor, double-speed CD-ROM drive.
Contact: Omnimedia on 0181 974 6766.

MACFORMAT RATING 88%

Fun School: Young Scientist

This activity pack offers a school unlike any you've seen before. Learn about the natural world and how it affects you with the help of a friendly otter.

That's enough of sitting in front of a computer all day – it's time to get back to nature. *Fun School: Young Scientist* is an environmentally conscious CD, which encourages your child to learn about nature through doing rather than watching video.

Every children's program seems to need a host, and you're welcomed here by young Ozzie the Otter. He points out the different places in his village you can visit, like the local vet or Ozzie's own house, and you explore each setting to find hidden activities.

Appropriately, for the woodland setting of Ozzie's village, the projects and activities are all to do with nature. They are evenly divided between those that get you to participate with your Mac, solving puzzles and rising to challenges, and projects that inspire you to switch off the Mac and go and make something. The science angle (or rather, the ecological angle) makes its entrance as you learn how to set up experiments to see nature in action.

Tasks range from erecting a bird bath (make sure you get an adult to help you!) to creating a plant terrarium out of a plastic lemonade bottle. The drawback is that you can't print out the instructions – aren't computers supposed to make life easier?

There is lots to explore, but the variety isn't as great as it appears. Each setting has a Match The Pairs game, for example, where you turn over tiles as you attempt to match up the hidden pictures. Only the tile designs change from game to game.

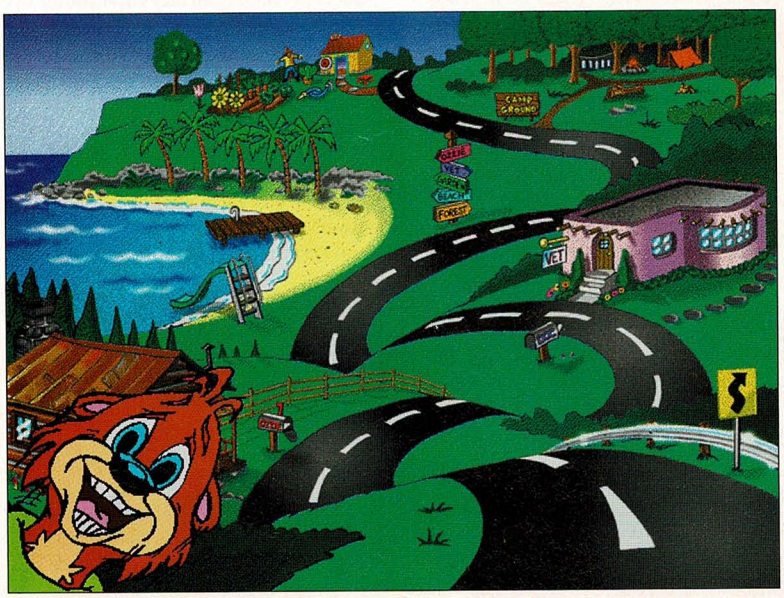
Several ideas are used more than once across the different settings in this way, mostly tried-and-tested features of much kids' multimedia, such as the colouring book and finding hidden objects within drawings.

The sorting game offers considerably more imaginative variations. Each time, you have to sort objects into bins before they run off the end of a conveyor belt, but different themes based around this structure teach you about concepts as diverse as recycling your rubbish and which animal belongs in which habitat.

Like other challenges in the program, the rewards for recycling your rubbish are not always worth the effort. No animations or stories to enjoy here – all you get is the same chorus of approval ('Whoo! Yeah! Well done!'), which ultimately becomes tedious and unfulfilling.

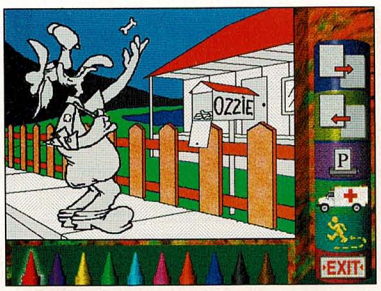
Young Scientist is reliable, rather than invigorating. A well-made but conservative package, it presents you with a reassuring world where nothing can go wrong. But it also sets an appropriate balance between using the Mac and encouraging your kids to take an interest in the outdoors. Best of all, it has the features and longevity to keep your children amused for some time – and at an extremely reasonable price, for a CD-ROM.

RICHARD HILL

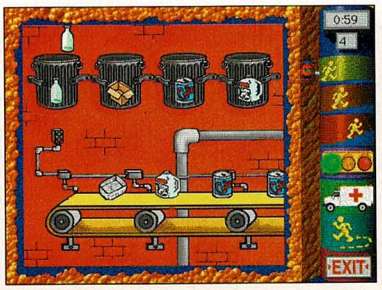


Here comes Ozzie the Otter, an energetic little critter with a perpetual grin on his face, who shows you around his village in *Fun School: Young Scientist.*

Visit places like the local veterinary surgery, where clicking on different patients will reveal activities and projects to do.



Use these crayons to colour in the drawing, but don't expect much artistic input – the program does most of the work for you, even the shading.



See how quickly you can separate your rubbish in this recycling oriented game, but think fast or it'll fall off the end of the conveyer belt.

FUN SCHOOL: YOUNG SCIENTIST

Price: £25.99. **Out:** now.
Age range: five to nine.
Requires: LCIII or better, 4Mb of RAM, System 6.0.5 or later, 13-inch colour monitor, CD-ROM drive.
Contact: Europress Software on 01625 859444.

MACFORMAT RATING **76%**

How Would You Survive?

Learn about the lifestyles, rituals and philosophies of some of the greatest civilisations of the ancient world and experience life as an Aztec, Viking or Egyptian.

It's astonishing how much we now know about civilisations from thousands of years ago, just from the fragments that remain. *How Would You Survive?* looks at three societies – the Egyptians, the Aztecs and the Vikings – at their peak, showing you how the people in each lived and died.

With clear, concise information, *How Would You Survive?* uses the tried-and-tested methods of children's books: you are put in the place of someone living during these ages.

Children in each era are your hosts throughout the program, first showing you around, then encouraging you to believe you're living in the same place and time as them; almost as if you're one of the family.

You'll probably want to jump right in, to immerse yourself in the societies on offer. The best way to do this is to view the town landscape, a rich vista of day-to-day life that unfolds as you move around the image. You can click on something that interests you to read more about it – the alternative is to use the contents page, which lists the same material by subject.

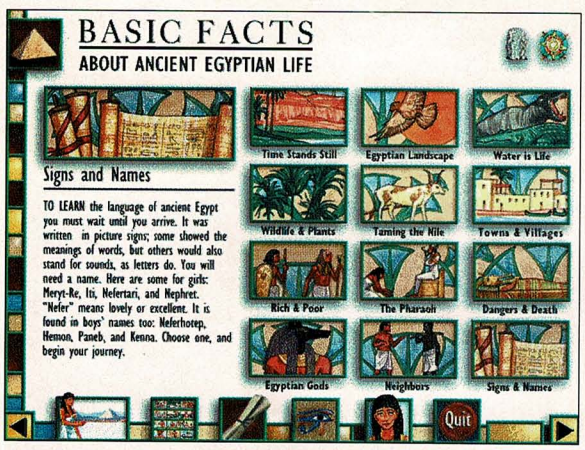
Page after page of information follows the same format, with well-researched illustrations and brief, unfussy text showing you how people lived. By moving your mouse over the illustrations, you uncover further explanations of what's on display. Your child host's voice encourages you to read on by posing questions about what living then must have been like: What did you wear? How were you educated? There's also a window that takes you to the Multiplex, a cinema-style menu of up to five videos connected with the subject. Icons on the screen give you constant access to other areas and features – a timeline that reveals how long Egypt prospered compared to the others, for example.

Many book-derived CDs enable you to jump into any chapter or even page of the book text. This isn't always a good idea, as you can find yourself tackling complicated ideas before you're ready. *How Would You Survive?* isn't affected too badly by its origins because each subject is self-contained, so you need to know relatively little to explore the rest at will. However, the best starting point is the Basic Facts section, which should perhaps have been given more prominence.

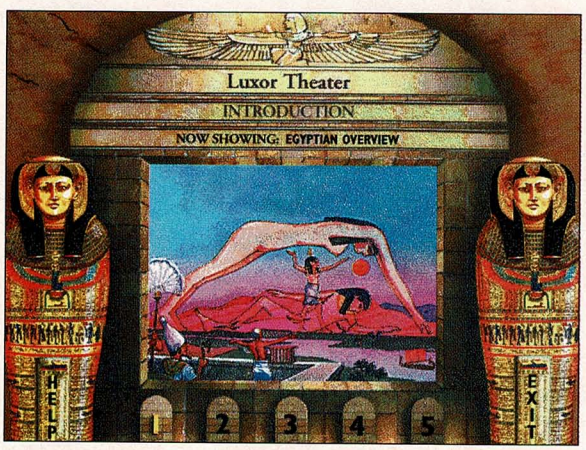
Once you're reading about a particular subject – healthcare, for example – you can simply click on icons to see how the sick were cared for in the other civilisations. Unfortunately, there's no search facility for looking up a word, which is a serious omission.

For something that started as a book, *How Would You Survive?* makes the transition to CD-ROM very well. But the only obvious reason for grouping these eras together is that there were books about them ready to use. Why else pick the Egyptians, Aztecs and Vikings and leave out other great civilisations?

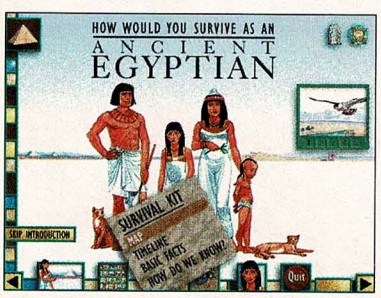
RICHARD HILL


BASIC FACTS
ABOUT ANCIENT EGYPTIAN LIFE
Signs and Names
TO LEARN the language of ancient Egypt you must wait until you arrive. It was written in picture signs; some showed the meanings of words, but others would also stand for sounds, as letters do. You will need a name. Here are some for girls: Meryt-Re, Isi, Nefertari, and Nephret. "Nefer" means lovely or excellent. It is found in boys' names too: Neferhotep, Hemon, Paneb, and Kenna. Choose one, and begin your journey.
Time Stands Still
Egyptian Landscape
Water is Life
Wildlife & Plants
Taming the Nile
Towns & Villages
Rich & Poor
The Pharaoh
Dangers & Death
Egyptian Gods
Neighbors
Signs & Names
Quit

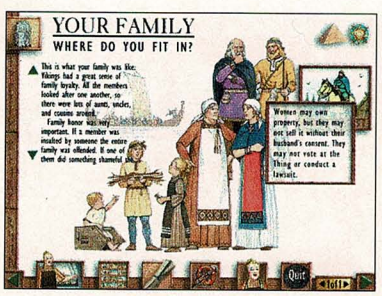
The best place to start in *How Would You Survive?* is by genning up on the basic facts, so you can understand the rest of the material better.



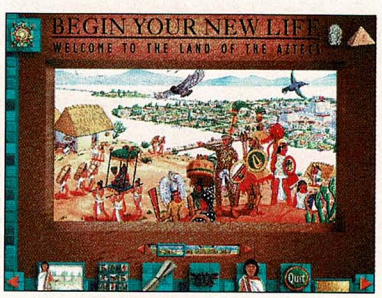
Not only were the Egyptians computer-literate, but they also had cinemas! Here you see video clips about their customs.



Despite the lack of computer technology in ancient times, the Egyptians still manage to give you a personal guide to how to use the CD.


YOUR FAMILY
WHERE DO YOU FIT IN?
Women may own property, but they may not sell it without their husband's consent. They may not vote at the Thing or conduct a lawsuit.
Quit
Left

Scroll down the main text on the left, then move around the illustration to find out more. You'll also hear a voiceover from your guide.



You can move around this spectacular setting with your mouse. Clicking on different areas reveals the town's secrets.

How Would You Survive?

Price: £39.99. **Out:** now.
Age range: seven to twelve.
Requires: LCIII or better, 4Mb of RAM, System 7.0.1 or later, 13-inch, 256-colour monitor and a double-speed CD-ROM drive.
Contact: Grolier Interactive on 0181 600 6023.

MACFORMAT RATING 75%

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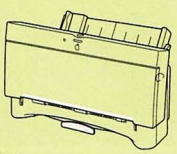

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music & the mac

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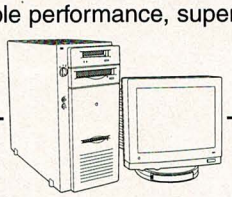
Contact Peter Johnson for more details



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Nikolai's Trains

Cute voices and charming animation accompany this imaginative tale, but you won't be treated like a child.

When is a children's book not a children's book? Certainly when you read it from your Mac's screen rather than the printed page, but *Nikolai's Trains* offers a less predictable answer to the riddle.

The program gives you 12 pages of story, which cover more ground than you might believe. The narrator reads out the words for you, and then you can explore the drawings, clicking on different parts to see what happens. It's a tale that has hidden depths of meaning to go with the hidden surprises in the pictures.

Nikolai and Neow-Neow are best friends and constant companions. Of course, at this age a best friend is just as likely to be a stuffed toy as a little boy, and Neow-Neow is in fact a toy cat. Only Nikolai and you understand that Neow-Neow is more than he seems, as they enjoy colourful adventures together in Nikolai's imagination.

This simple situation celebrates a child's potent imagination, where real life and the dream world are the same thing. But it's also used to acknowledge some of the darker aspects of childhood; maybe the things some adults choose to deny their child could be aware of. Nikolai and his friend have a volatile relationship: Neow-Neow can be a mischievous little cat sometimes. As the two have a train race, he cheats and blames everything except himself when things backfire.

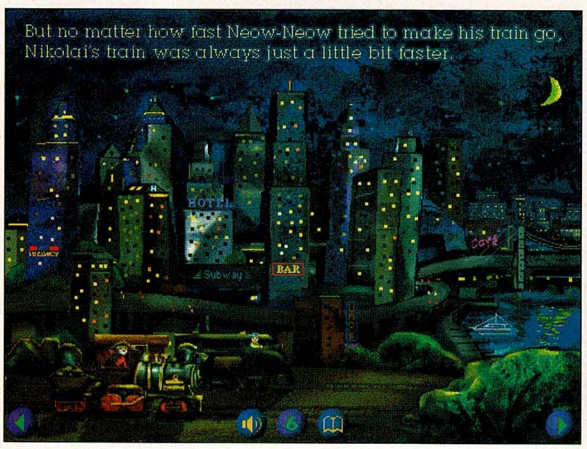
Childhood fears

The moral is that the pair wouldn't be without each other. The story deals with a child's natural fear of getting lost in strange places, letting enough light into gloomy woods and dark caves to ensure that you're not frightened of them as you read the tale. *Nikolai's Trains* reassures you that someone will come looking for you, even when you've been naughty.

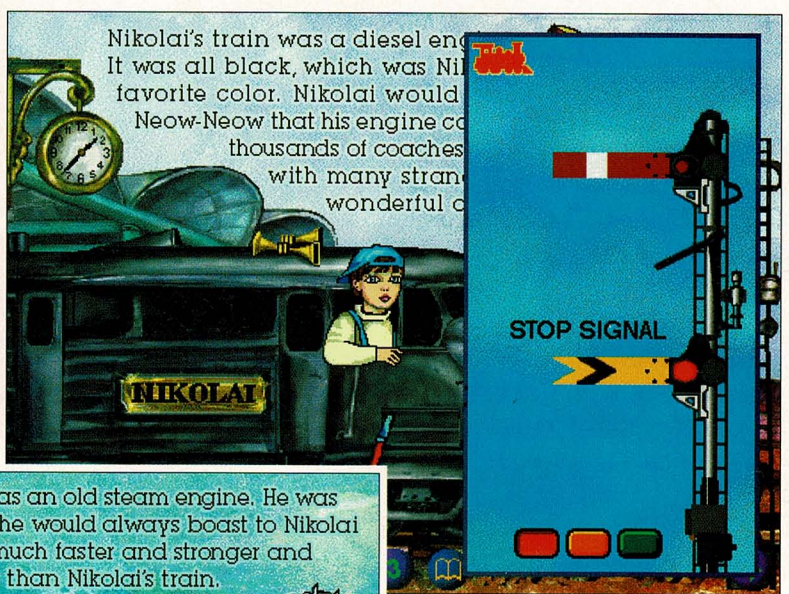
Naïve watercolour sketches and flowing woodwind music evoke another world, as they should when a story takes place in the imagination. Through exploring the drawings, you'll find some graceful and witty animation – there's an excellent interlude where you have to help Neow-Neow out of a nasty situation before the story can go on – and occasional pieces of more direct education. You can find out about how steam trains and signalling work, and how the coal that powers them gets to the surface. These sections are reasonably clear, but children will probably find the explanation of the hydrologic cycle, where water vapour turns into cloud and then rain, goes over their heads.

But this niggle aside, *Nikolai's Trains* is a surprising and generous story, charmingly child-like and yet very grown-up.

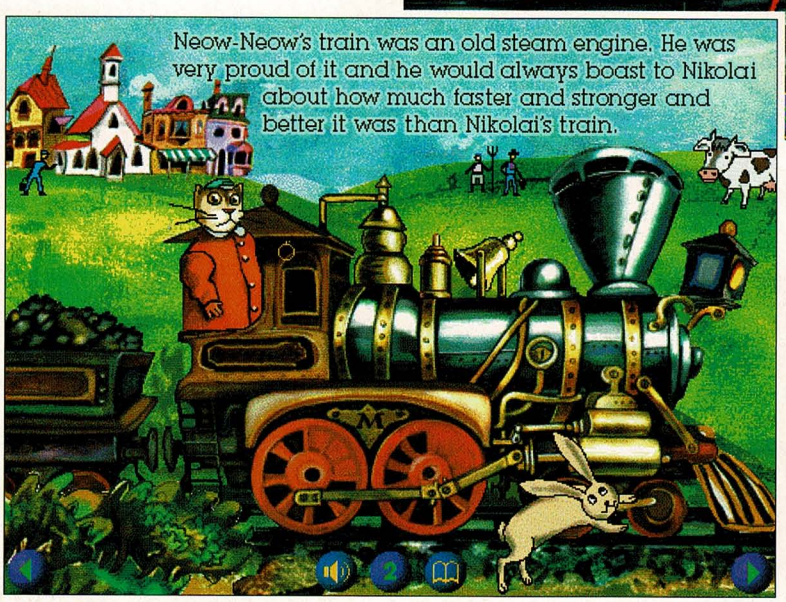
RICHARD HILL



The disc uses evocative animation and music to tell the story, and exploring the pictures reveals surprises.



Sometimes you'll find information on how trains work – click on the coloured buttons to set the signal at stop, slow or go.


Neow-Neow's train was an old steam engine. He was very proud of it and he would always boast to Nikolai about how much faster and stronger and better it was than Nikolai's train.

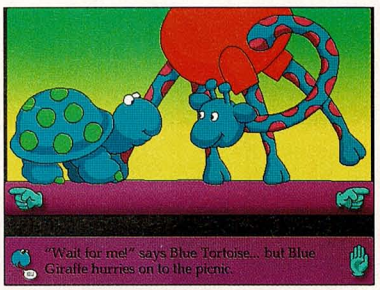
Nikolai's Trains tells the story of a boy and his cat, as they race across the lands of the boy's imagination.

NIKOLAI'S TRAINS

Price: £19.95. **Out:** now.
Age range: four to eight.
Requires: LCIII or better, 8Mb of RAM, System 7.1 or later, double-speed CD-ROM drive.
Contact Channel MarketMakers on 01703 814142.

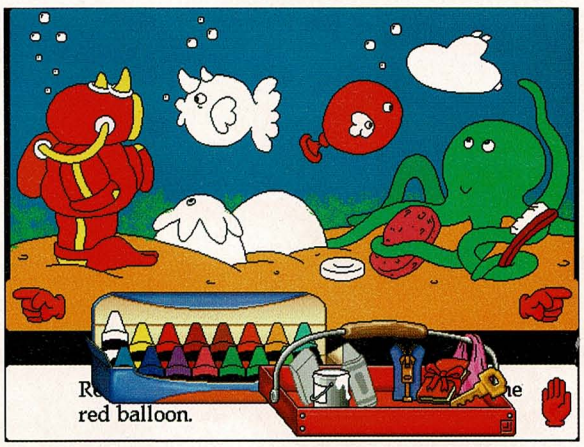
MACFORMAT RATING 75%

Red Rhino and Blue Tortoise



Read in Spanish or English of how poor slowcoach Blue Tortoise gets even when all his friends leave him behind.

Start your kids on the Mac young with these two interactive storybooks.



In *Red Rhino*, you'll find your paint set is waterproof, so colour in the sea scene to your heart's content.

These programs are on sale separately but are very close in approach and style, hence the dual review. Each is an interactive colouring book with a simple colouring activity as a bonus.

As you read through each story, you can pause to explore, clicking on different areas to see what happens. You're rewarded with short animations: the artwork is full of bright colours and soft, comfortable shapes.

Both stories are straightforward, following one basic idea. *Blue Tortoise*, in homage to the fable of *The Tortoise and the Hare*, relates how all the other animals refuse to wait for the poor old slowcoach. But Blue gets the last laugh in an unexpected way. It lasts no more than ten minutes though, and clicking on the pictures is a diversion rather than part of the story.

Red Rhino tells how our hero loses his red balloon and goes off in search of it. As with *Blue Tortoise*, you click on the pictures to make things happen, but the challenge to find the hidden balloon in each picture engages you with the story – your reward for finding the balloon is seeing the next page.

Each story comes with a colouring book that gives you the pages you've just seen, only in black and white. These are easy to use, with boxes of paint and crayons on the screen.

Both *Red Rhino* and *Blue Tortoise* are fine as far as they go, but even three-year-olds would benefit from a little more to do.

RICHARD HILL

RED RHINO

Price: £19.95. **Out:** now.
Age range: three to six.
Requires: LCIII or better, 8Mb of RAM, System 7, 12-inch colour monitor, CD-ROM drive.
Contact Channel MarketMakers on 01703 814142.

MACFORMAT RATING **66%**

BLUE TORTOISE

Price: £19.95. **Out:** now.
Age range: three to six.
Requires: LCIII or better, 8Mb of RAM, System 7, 12-inch colour monitor, CD-ROM drive.
Contact Channel MarketMakers on 01703 814142.

MACFORMAT RATING **60%**

Learn the Art of Magic

A daring act of prestidigitation and illusion on this one and only magical CD-ROM!

American magician Jay Alexander invites you to *Learn the Art of Magic* through video clips.

The crafty sleight of hand of the magician has fascinated generations. Now the secrets are laid bare in the CD-ROM *Learn the Art of Magic*. The disc also pulls off a stunning feat of technological magic for the computer age. It looks like a multimedia CD-ROM; touch it and it feels like one too, but presto! It's actually a video cassette.

American magician Jay Alexander guides you through the history and techniques of the best-known parlour tricks, like three card monte and passing the card through the table. Wacky, MTV-style video clips show you the trick and how to do it – you can try some of the tricks with the magic kit that comes with the disc. Presentation is important too – make sure you master the repartee as well as the dexterity. You can then lay on a show with the help of a poster and tickets you can print out.

Giving you the tools to put on a show gets you involved, but the CD doesn't offer anything so inspiring. Several sections cover magicians and their tricks, but all you get to do is click a button, watch Jay goof around and spill a fact, click the next button, watch Jay...

This is one CD that would have been better as a £15 video – after all, all you do is sit and watch the screen. *Learn the Art of Magic* is not much more than a piece of flashy trickery: it presents the illusion of being an interactive CD, but it doesn't make use of the medium at all.

RICHARD HILL

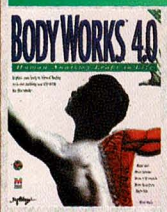
LEARN THE ART OF MAGIC

Price: under £30. **Out:** now.
Age range: eight to twelve.
Requires: LCII or better, 2.5Mb of free RAM, System 7.0.1 or later, 13-inch 256-colour monitor, double-speed CD-ROM drive.
Contact: Brøderbund on 01429 273029.

MACFORMAT RATING **43%**

EMERALD Creative Technology

Reference



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Using Virtual reality techniques 3D models of body parts can be rotated a full 360° in this wonderful guide to the human body. Body Works 4 includes 165 colour illustrations, 45 movies, 300,000 words of text, 1900 words pronounced and 1200 definitions of technical terms.

Plus, Body Works 4 also includes a new nursing section, health and fitness guide, quizzes, and much more !

Body Works 4 is available on CD at £39.95

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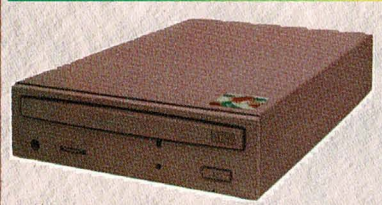

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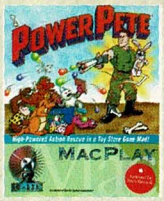

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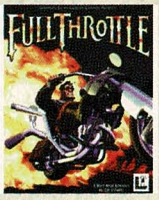

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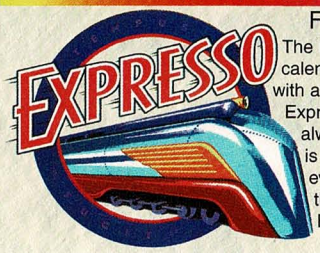

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RedShift 2

Just over a year ago, Maris Multimedia redefined the astronomy package. Now we have a sequel. How much has it changed, or is this just another frontier?

IF YOU'RE A NETHEAD

Maris' Web page has more information about *RedShift* at **http://www.maris.com/maris/**

MAC MOON

Available on Macintosh only are the *RedShift* rolling demos where you can watch 3D VR models of planets and their moons rotate in real time. 'This is as real as it gets without being there,' state Maris. We'll take their word for it.

Some things are made minute. Plankton, Noel Edmonds, agreements on the European Union. Others are monumental. Skyscrapers, Robbie Coltrane, *RedShift 2*. Anyone wishing to investigate the giant unknown outside Stansted Airport should turn to *RedShift 2*. An update and marginal improvement on the original classic, this new world CD-ROM is a colossus among multimedia excursions.

MACFORMAT Classic

RedShift 2 hails from the land where space travel is still considered more important than hamburgers – Russia, using skills originally developed for the Soviet space programme (see our behind-the-scenes report in MACFORMAT 31). *RedShift 2* has none of the golf-shot bravado of American exploits, but all the searching, enquiring gusto of a continent still unsure about the validity of *Star Trek* in the modern world.

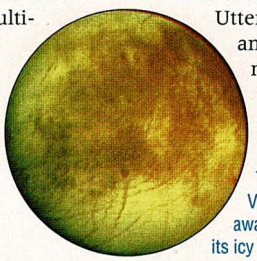
What *RedShift 2* does effortlessly is detail and unravel the complexities of the night sky and beyond. Okay, so it's full of tricks, planet circling, info-zooming, video-clicking, but when the sun shuts its eyes, all darkness is detailed here. Every planet, every star, every deep constellational rumbling is photographed, dissected, videoed, analysed, exposed. You can view the sky from a thousand different locations, spying asteroids, comets, moons and all manner of deep space objects with the help of the most versatile telescope known to man. You can even make your own movies. Initially daunting, *RedShift 2* is fairly simple to use, if tricky to master. This is to be expected, because Maris Multimedia have produced the most comprehensive, spectacular and riveting astronomy program ever.

Although the new features can but dent the vastness of the whole, they are interesting additions, nevertheless. Ten narrated movie-quality animations introduce you to the principles of astronomy; there are new movies and photographs; and the start display has been improved, giving you greater control over objects. But most exciting for wannabe-astronomers is the inclusion of a surface map of Venus and improved mathematics that enable the software to calculate orbits and track the paths of satellites, space probes, comets and asteroids. Hitching a ride on Halley's Comet is just one of a number of solar trips. Impressive.

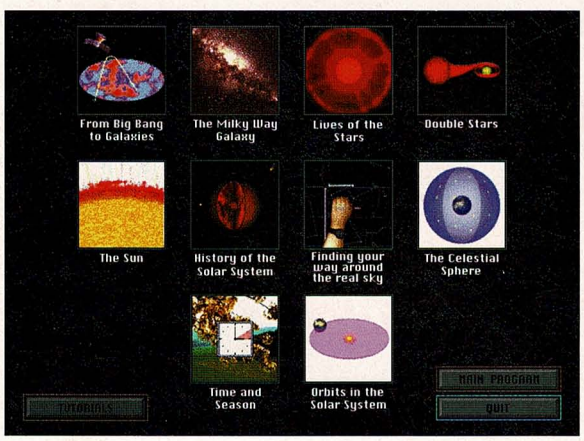
These few additions shouldn't encourage you to dish out £50 if you own the original *RedShift*, even at this shrunken price. This isn't a cynical repackaging, it's just that the original *Redshift* doesn't need much improving on. The changes are more of a small step than a giant leap. Commendable, but not essential.

RedShift remains unchallenged, the Zeus of all astronomy packages. Utterly definitive and as ambitious as the subject matter demands. You can't keep those pesky Russians down.

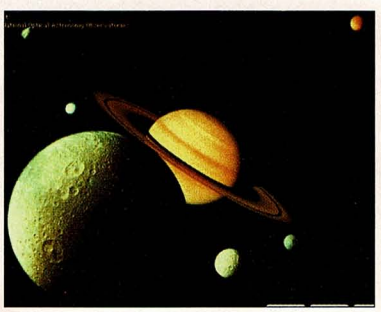
GIL GILLESPIE



The moon of Europa imaged by Voyager 1 from 1.2 million miles away is seen as a bright disk because its icy surface strongly reflects sunlight.



The tutorial provides you with a guide to the solar system and uses over 30 minutes of original movie quality 3D animation.

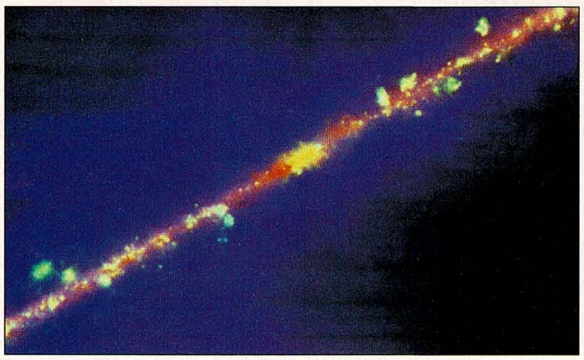


Saturn and six of its moons.

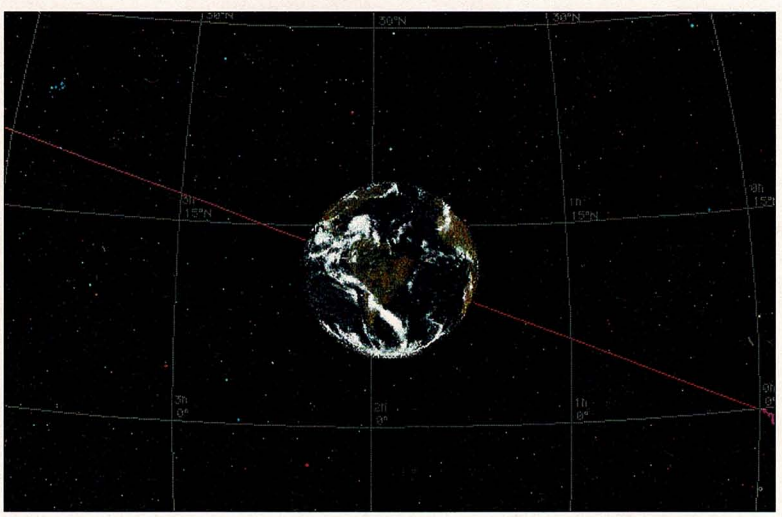
REDSHIFT 2

Price: £49.99. **Out:** now.
Requires: LCII or better, 8Mb of RAM, System 7 or later, 256-colour monitor, CD-ROM drive. PowerMac native mode.
Contact: Maris Multimedia on 0171 488 1566.

MACFORMAT RATING 92%



The centre of the galaxy – haven't been there, haven't done that.



The stars in *RedShift 2* are coloured, enabling you to easily measure their distance from planet Earth.

Encyclopedia of Science

Oh no, not science. Proving that encyclopaedias belong on CD, Dorling Kindersley take this revered discipline and breathe new life into its flabby bellows. Blown away? You will be.

Science is a thorny subject. Remember school? Maths, physics and chemistry were the worst, and they always came in double-blocks. Two long hours of test-tube, graph-plotting misery with a teacher who had all the charm of Michael Portillo on Mogadon. The challenge for Dorling Kindersley is simple: to make a potentially boring subject interesting and comprehensible. Sounds tough, but *Encyclopedia of Science* does this with ease... and then some.

The first thing you notice is its originality. The interface pictures a primitive machine, hissing and crackling with the noise of electricity. Within this H G Wellsian contraption lies a world of discovery.

Divided into Mathematics, Physics, Chemistry and Life Sciences, there are over a thousand screens and pop-ups, two hours of audio narrative, 600 illustrations, and 80 animations and video sequences. Everything, from the Big Bang to the Greenhouse Effect, is detailed in a colourful, user-friendly virtual lab, with great design and graphics. A Who's Who of science, a section on the Earth and the Universe, a dictionary and a quiz turn this CD into multi-layered educational cross-referencing at its finest. Jump-off points are omnipresent. Look up, say, Force and Motion, and you're presented with ten related areas including the life history of Isaac Newton. Click on one of the hundreds of subject areas in the extensive dictionary and you leap straight to it. It's a revealing experience – quicker and more fun than those weighty tomes at your local library. An achievement that suggests that the future of reference works does indeed lie with the CD-ROM.

Swot up on a few scientific facts with the demo on the Cover CD

Where *Encyclopedia of Science* really excels is in its attitude. Science is regarded as part of our lives rather than something to be kept locked away in dusty laboratories. Every subject is approached with a careful, jargon-free humanism that encourages rather than stifles learning. You need never be blinded by science. Even trigonometry, that most angular of issues, is transformed into something almost enjoyable. The Life Sciences department is particularly interesting, taking into account the developments in recent years of eco-philosophy, with a brief outline of our planet's ever-dwindling resources.

Careful not to get weighed down with video clips, the CD keeps a sense of simplicity throughout. Anything can be accessed, understood and subject-related within seconds, and film is restricted to an illustrative role.

Encyclopedia of Science may achieve little more than providing you with a general scientific knowledge, and developments such as virtual reality are overlooked, but as an all-round expedition into a world fraught with confusion, this reference guide is just about perfect.

GIL GILLESPIE

BEHAVIOURAL PROBLEMS

In 1894 Einstein was expelled from school with no qualifications. By the age of 26 he made four major breakthroughs in the world of physics, including the Theory of Relativity.

Frankenstein's monster. The machine interface hisses and crackles with primitive noise.

LIGHTNING
AIR CURRENTS in storm clouds cause water and ice particles to collide. Positive charges build up at the top of the cloud and negative charges at the bottom. As opposite forces attract, the charges leap across the cloud
toward each other and neutralize. This results in sheet lightning.
Negative charges at the bottom of a cloud sometimes neutralize by leaping toward the ground. This results in forked lightning.
Positive charges
Water and ice particles
Negative charges
Electrical storms
Electrical discharge causes sheet and forked lightning.
STORM CLOUDS

Explaining electric light. The video of a lightning strike rolls in time with the narrative.

Easy to use and wonderfully layered, *The Encyclopedia of Science* enables you to roam free around any science-related subject. Looking up a topic on this CD is much quicker than heading for the library.

Bronze circular world. Dorling Kindersley are not afraid of using ancient imagery to give things a touch of class.

ENCYCLOPEDIA OF SCIENCE

Price: £59. **Out:** now.
Requires: LCIII, 6Mb of RAM, System 7 or later, 256-colour, 13-inch monitor, CD-ROM drive.
Contact: Dorling Kindersley on 0171 753 3488.

MACFORMAT RATING 89%

INVENTING SHADOWS

The French artist Etienne de Silhouette (1709-67) gave his name to the shadow portraits he created.

Planetary Taxi

The meter's ticking double-time. You're on your way to Mars and there's no way the driver will take five in the cab. Greet the new world of star-spotting rides home.

THE MOON'S A BALLOON

A scale model of the solar system is used throughout in order to help children understand the size and distance of planets. The sun is a giant balloon and the planets are represented by fruit and veg.

POSTCARDS FROM THE EDGE

While journeying through the skies you can send Rita, the girl in dispatch, postcards from various planets. She even thanks you.

Yo, taxi! Imagine standing on a New York sidewalk, throwing out an optimistic arm and getting into a space cab, something that can take you to the farthest reaches of the universe. Bizarre, but this is the premise behind the coolly original *Planetary Taxi*, a scientific learning tool with enjoyment at the centre of its universe.

Essentially two CD-ROMs in one, *Planetary Taxi* contains a mini encyclopaedia of the solar system and a neat little space game where you pick up passengers and drive them to their destination in a big yellow taxi. It's educational and fun, and should leave your children saucer-eyed, open-mouthed and a good deal wiser on all things skyward.

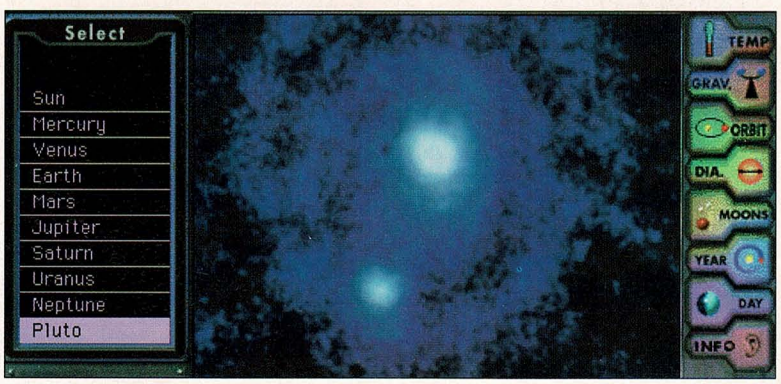
Although the game element is the centrepoint here, the more mundane process of planet-spotting remains an often spectacular experience. Information on all the known planets is revealed through graphs, satellite photography and QuickTime movies of recent space excursions. Want to know the average temperature on Neptune? No problem. The length of days on Pluto? Easy-peasy. *Planetary Taxi* takes every recent advance in space discovery and slides it neatly into a package that resounds with the frivolity of *Sesame Street* and all the authority of those sombre made-for-schools videos. Despite its educational leanings, the narrative never preaches in dull monotone and always retains an all-important sense of amazement. The incidental bubblings and eerie ambience of the music play a significant part in the other-worldly approach. Then, when you feel you know the solar system as well as your next door neighbour's garden, you're ready to play the game.

Cruising the Milky Way

With a choice of three taxis to drive, ranging from rookie to expert, you find yourself behind the wheel of a space cruiser with a shuttle-attitude, surfing through the known universe and picking up a whole host of kookie New Yorkers on the way – Italians, Rastas, troublesome twins and a number of girls who squeak and irritate like Cyndi Lauper. They demand that you take them to certain planets without actually stating the name, and it's up to you to decide their destination. So if someone gets in and asks to be driven to the planet with the most gravity, you take them to Jupiter, then watch as the cab spins on its axis and hurtles down a cartoon highway. Throughout this cosmic voyage you keep in touch with Rita, the girl in dispatch, who fires tips and advice at you in deep Brooklyn street-talk. Entertaining, if hardly ideal for the UK user.

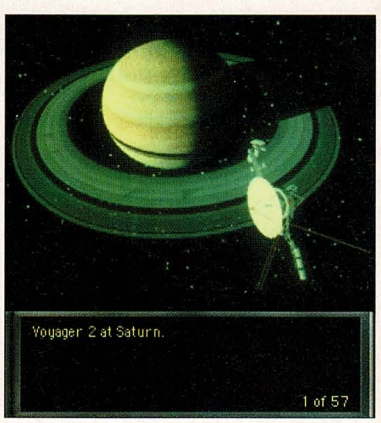
Planetary Taxi takes an entirely novel approach to learning and works well on just about every level. Sharp, almost hip graphics, amusing gameplay and thousands of facts about life, or the lack of it, outside our window. It may not be definitive, and some buyers might be put off by the bagel 'n' beer Americanisms, but when there's this many miles to travel, it's one hell of a drive.

GIL GILLESPIE



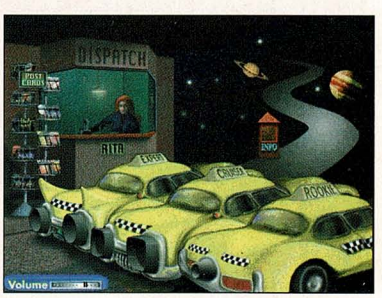
Blurred and blue. There are very few photos of Pluto. This shot pictures the distant planet and its moon, Charon.

Life on Mars? Seems unlikely, doesn't it? *Planetary Taxi* gives you a good view and loads of information on the planets in our solar system.



Voyager 2 was launched in August 1977. Visiting Jupiter first, it reached Saturn in August '81.

The inside of your space-cruiser is refreshingly free of those Please Do Not Smoke signs.



This is dispatch, and that sassy broad in the cabin is Rita. Be nice to her – she's your only friend.

PLANETARY TAXI

Price: £29.99. **Out:** now.
Requires: any colour Mac, 2.5Mb of RAM, System 6.0.7 or later, 13-inch colour monitor, CD-ROM drive (double-speed recommended).
Contact: Astrion on 0181 202 0011.

MACFORMAT RATING 84%

Materials

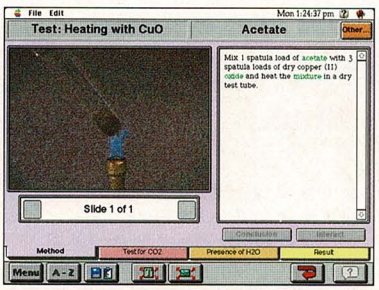
Science conjures up images of cold school labs and dangerous pranks with electricity. They never had multimedia CD-ROMs when we were at school.

If textbooks are dull, then Chemistry textbooks must be the ultimate in humdrum – thousand-page catalogues for the terminally bored. Is it any wonder that your average 16 year old approaches science learning with deep reluctance? The challenge for the science CD-ROM, as we saw with Dorling Kindersley's masterpiece on page 113, is to grab the attention of those currently engaged in learning. A difficult task, made easier by technology.

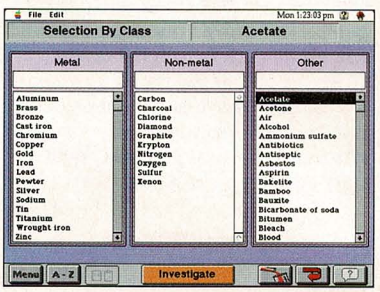
Developed by Interactive Learning Productions and Yorkshire Television, *Science Series 2: Materials* is a textbook brought to life, the materials for the most part being those nasty little chemical things that are usually known by their symbols. Gold is Ag, Potassium is P, and so on. A database of over 150 materials is included, as well as a section of 15 standard tests and an interactive multimedia game that provides some expert tuition for anyone studying GCSE or equivalent.

Click on a subject in the database and you can investigate its properties: density, elasticity, solubility and more. Everything is explained in text form, with 1,000 colour photographs, 70 video clips, animations and an audio option for those too tired to read. It's multi-layered, functional, and so classroom-friendly that it even enables teachers to create their own database from which the structure of lessons can be drawn.

Science Series 2 has, first and foremost, been developed for use in schools and is (possibly as a result) massive and heavily overpriced. A whole laboratory of information is condensed into one CD-ROM. Learning things like the melting point of iron might seem fairly unimportant to Joe Public, but to an exam-expectant, science-wary teenager, it's absolutely essential stuff... at least until the bell goes. This extensive stroll through one of the most important elements of science will be welcomed by teacher and pupil alike. But it could have been conducted so much better.



Burning Acetate is as exciting as it looks. It's just a shame about the drab presentation.



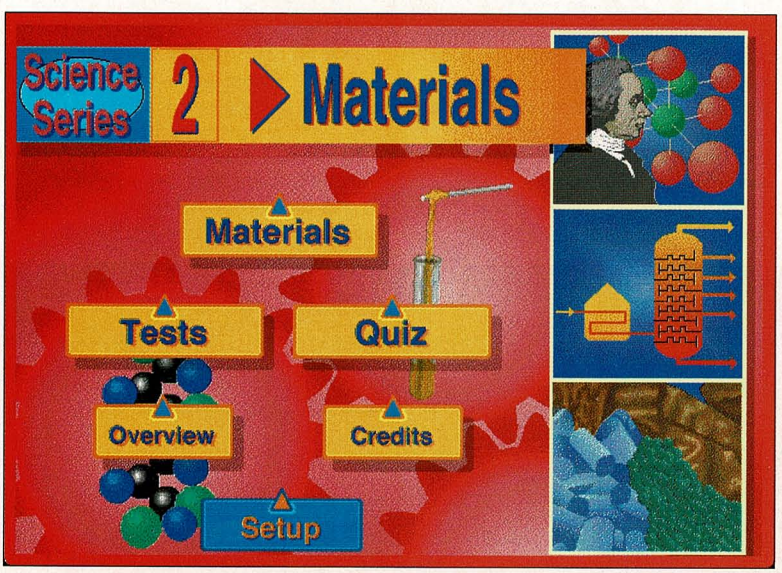
Heavy metals. The lists of names show the purely functional nature of the inspiringly entitled *Science Series 2: Materials.*

Simple, efficient, dull

While *Science Series 2* performs its tasks simply and efficiently, it brings with it all the dullness of a textbook. All too often it resembles something from a 1950s documentary – lots of flat, lifeless photographs of grey test-tubes held over Bunsen burners. It's functional, yes, but it's just like school – so much so that you're suddenly filled with an urge to flick elastic bands at anyone in range.

The whole package is poorly linked too – you're consistently forced back to the menu screen to access whatever information you require, and the claim of interactivity is mostly restricted to the test section, where you can discover the properties of the elements through experimentation.

This is a worthy but dull mega-glance into the world of materials. For anyone currently yawning at the back of double Chemistry it might just provide the spark you need to get a better grade. But at this price? **Gil Gillespie**



The cartoon-ish animation prevails throughout. It's simple but a little unambitious.

The quiz section is where the heart races in double time as you attempt to answer obscure questions about the properties of Potassium Sulphate.

Perhaps it's worth mentioning that drinking pure, undiluted alcohol can kill you!

Miss, I'm stuck

The quiz element of *Science Series 2* enables you to answer quick-fire questions and pick up points for the correct answer. Do not try this if you left school longer than five years ago.

Materials

Price: £79.99. **Out:** now.
Requires: LCII or better, 4Mb of RAM, System 7 or later, 13-inch colour monitor, CD-ROM drive.
Contact: Yorkshire International Thomson Multimedia Ltd on 0113 243 8283.

MACFORMAT RATING 58%

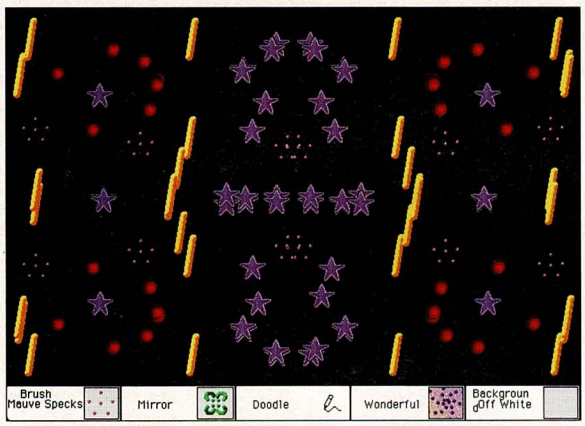
Fog clears on Tyne

Interactive Learning Productions was started in 1986 at Newcastle University.

SHAREWARE AND PD

More thrilling shareware fetched from the depths of cyberspace by disk specialist Colin Dalziel. (Pronounced Dee-ell. Middle name Blud.)

All the shareware featured here and more is on our covermounted CD-ROM



Save a rain forest by doodling on your Mac with *Doodler*.

The Internet is a funny thing. You spend hours looking around loads of different sites, spending all your spare cash on the phone bill, and all you do is fill your hard disk with rubbish. This issue, after only an hour on-line, the MACFORMAT shareware disk had some real gems. It just goes to show there's good stuff out there, if you can only stumble on the right site at the right time. Of course, you don't have to worry about all this – just read on and enjoy the selection.

Doodler

DRAWING PACKAGE

EncourageWare

Are you one of those people who can't sit with a pen (or spray can) in your hand without doodling on the nearest surface? If so, you won't want to miss out on the chance of doodling with your Mac. On the face of it, it's a silly idea, but if you think about it there are lots of benefits to using your Mac to doodle. For a start, you don't waste paper, ruin the wallpaper while you're on the phone, or scribble all over the latest copy of your loved one's favourite magazine.

This program is great fun. It's a bit like having a spirograph on your computer – just move your mouse around and pretty patterns appear on the screen. And because it's on a computer, you don't have to keep the doodles that end up looking a mess – just keep starting again until you get it right, then print out your work of art.

SoundEffects

SOUND PROCESSING SOFTWARE

Shareware, registration fee $15

SoundEffects is a powerful stereo sound processing package that enables you to record, edit, add effects and filter sounds to your heart's content. In the world of television it isn't unusual for more time and effort to be put into getting the sound right than the pictures, but sound is an area that many non-professionals overlook in their projects. Yet if you're into producing your own multimedia, you really should optimise the sound to get the most from your creation – and this is the program to get you started.

Even if you're not into multimedia, playing around with sound files can still be great fun. Once you perfect your editing skills, why not record a politician's voice, rearrange all the lies and rubbish and make up a whole new libellous statement?

Useful features include the ability to resample your sound files to more appropriate rates. After all, there's no point storing large sound files sampled at CD quality (16-bit, 44.100Hz) when your Mac is only capable of lower output rates, as is the case with some Performa and LC models. You'll also find this feature useful if you're into multimedia development, where sound file sizes often need to be reduced for effective synchronised playback from slower media such as CD-ROM.

This program isn't quite finished, and is released as version 0.9.1, so maybe you should forgive it any shortcomings. However, one feature that really should have been included in the earliest version is an Undo option. Even at top professional levels, manipulating sound is often a trial and error process, and not being able to go back and redo an edit is a severe limitation on an otherwise excellent program. According to the Read Me file, this shortfall will be rectified in a future version.

The Recipe Box

COOKERY GUIDE

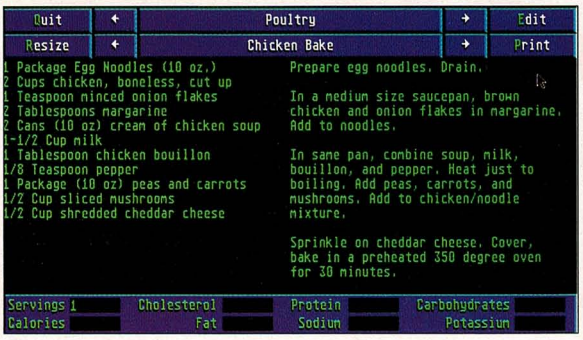
Shareware, registration fee $35

The shareware world is littered with all kinds of cook books and calorie counters. *The Recipe Box* can hold over 2.5 million entries, which means that if you manage to fill the database, you won't have to repeat a meal for over 6,849 years! As well as recipes, it has a grocery planner built in to ensure you have all the right ingredients before you start cooking, and a calorie counter to make sure you don't put on too many of those extra pounds.

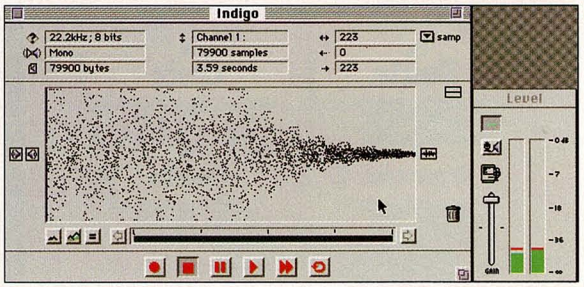
This is all fine until you actually use the system. The calorie counter really ought to be connected to the recipe section of the program, so that it automatically gives you the calorific value of the meal you are preparing. As the system stands, you have to enter the values from the list supplied and add it all up yourself.

Meanwhile, the shopping list section looks handy, but you have to enter all your own goods and prices, which is a laborious task for even the keenest of shoppers. It all has a non-Mac feel to it, too, perhaps following the original Atari ST version too closely for die-hard Mac interface fans.

All the necessary ingredients are included in *The Recipe Box*, it's just that


Quit
Poultry
Edit
Resize
Chicken Bake
Print
1 Package Egg Noodles (10 oz.)
2 Cups chicken, boneless, cut up
1 Teaspoon minced onion flakes
2 Tablespoons margarine
2 Cans (10 oz) cream of chicken soup
1-1/2 Cup milk
1 Tablespoon chicken bouillon
1/8 Teaspoon pepper
1 Package (10 oz) peas and carrots
1/2 Cup sliced mushrooms
1/2 Cup shredded cheddar cheese
Prepare egg noodles. Drain.
In a medium size saucepan, brown chicken and onion flakes in margarine. Add to noodles.
In same pan, combine soup, milk, bouillon, and pepper. Heat just to boiling. Add peas, carrots, and mushrooms. Add to chicken/noodle mixture.
Sprinkle on cheddar cheese. Cover, bake in a preheated 350 degree oven for 30 minutes.
Servings 1
Cholesterol
Protein
Carbohydrates
Calories
Fat
Sodium
Potassium

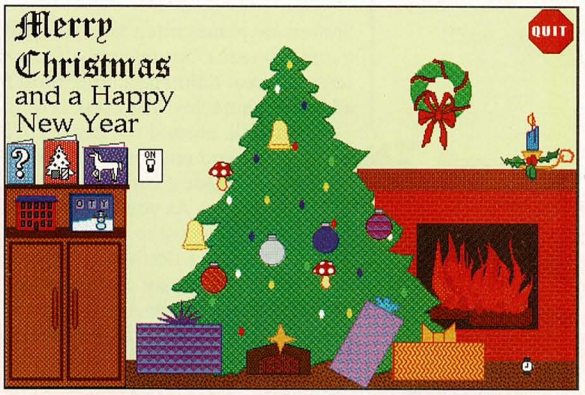
Does anyone know where you buy chicken by the cup? And when is the EC going to make the US convert to metric, that's what we want to know? *The Recipe Box* certainly doesn't tell you.



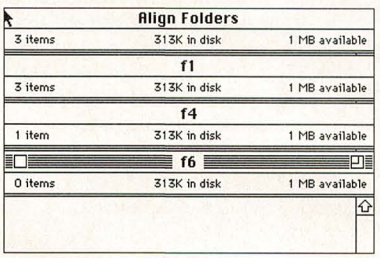
With the aid of *SoundEffects* you can now find those satanic messages hidden backwards in nasty rock albums. You can do useful things with it, too.

No festive Desktop is complete without the essential *Xmas Lights*.

Created in *Knot 3*, this image is called Brain. Looks more like a tangle of string to us uneducated plebs.



Don't forget to decorate your Christmas tree with mushrooms this year. Everyone's doing it.


Align Folders
3 items 313K in disk 1 MB available
f1
3 items 313K in disk 1 MB available
f4
1 item 313K in disk 1 MB available
f6
0 items 313K in disk 1 MB available

Military precision is in store for your Desktop, care of *Align Folders*, the latest Clairvoyantware.

you have to do all the hard graft yourself, and input most of the information manually. But once you've set up the system, all you need is a Mac to put on top of the microwave.

Knot 3

GRAPHIC SOFTWARE

Shareware, registration fee $20

Knot is a graphics package with a difference. Instead of the usual painting and drawing tools, it simply gives you threads, with which you can create a mass of tangles. If you think the idea of making knot-like patterns on your computer screen sounds like a strange thing to want to do with a Mac, you'd probably be right, but it is interesting in a funny sort of way, and you can get some artistic results.

We gave away *Knot 2.1* on the Cover Disk with MACFORMAT 25, but version 3 offers one major new feature: the ability to create animated knots! However, on test it took over an hour to create one of the sample animations on a PowerMac 6100, so patience is definitely a virtue if you want to create a tangled blockbuster.

When you open a file, you are greeted by a complex interface which enables you to generate a wide variety of interlocking threads. Unless you are some sort of mathematical genius, it's unlikely you'll know what you're creating until the final knot is displayed. But the element of surprise is one of the fun things about this package, and you find that most experimental efforts at creating images produce pleasing results.

The one weakness of the program is that you can't actually look at your creations from within *Knot*. Instead you have to view your image via a package that supports TIFF files. But most graphics packages support TIFF, so it's not really a big problem – it's just a pain having to open up a suitable graphics package. *GraphicConverter* and *Color It!* will both do the job, and both can be found on the Cover CD.

ChristmasTime 2

CHRISTMAS NOVELTY

Shareware, registration fee $5

ChristmasTime is really two small programs in one. First, you are presented with a Christmas tree surrounded with presents. You can open the nearby drawers and decorate the tree, switch the lights on and off, and sneak a peek at what's hidden inside the wrapping paper. There are other things to select and explore, so click away and find all the hidden features.

The second part of the program gives you a quiz. The program asks you a series of Christmas-related questions, and you have to rearrange an anagram correctly to get the answer. On completion you're rewarded with a festive tune.

There's lots for kids to explore in this little gem, so if you want a bit of a rest on Christmas day, why not sit the kids in front of your Mac and leave them to it? They're bound to prefer it to that expensive toy you shelled out over £100 for.

Xmas Lights

FUN DESKTOP UTILITY

Freeware

No festive Mac is complete without a set of fairy lights to brighten up your Desktop, so don't be left out, put this tiny Control Panel in your System Folder and on restart you'll have an attractive row of Christmas lights hanging down from the top of the menu bar. And if this sort of thing isn't your cup of tea, you can always be miserable instead, and wander round

Continued on next page

CONFUSED ABOUT SHAREWARE?

■ **Shareware** is a form of 'try before you buy' software selling and it's a great idea so long as you're honest. When you get some shareware, the documentation file accompanying it will tell you how much it costs – typically it's somewhere between US$5 and $40 – and where to send your money. If you like the software and decide to keep it, then you're morally obliged to cough up. Not only do you get the satisfaction of boasting to friends about how honest you are, but the author will often give you something in return for registering, like a printed manual, or updates when released. The most common problem is sending money abroad, but as many shareware authors now accept credit cards, it's getting easier.

■ **Freeware** means that you don't have to pay for it at all. There are many derivations, such as postcardware, which means you have to send a pretty postcard to the author.

But freeware is not strictly the same as **Public Domain** (PD) because although you don't pay for freeware, the author keeps copyright and you have to follow his terms and conditions to use the program. This often means keeping all the files together and not using or selling them for profit.

Infotron

PUZZLE GAME

Shareware, registration fee $10

Shareware games often lack the quality of their commercial cousins, but *Infotron* offers wonderfully drawn screens, great animation, and, most frustrating of all, addictive gameplay. Your task is to move Murphy, a red gumball, around the insides of a devious computer. (If you really want to know how a gumball got inside a computer, it's in the Read Me file.)

As you move around the circuitry, you have to collect a certain number of Infotrons – simple circular shapes. The nasty computer has hidden all sorts of obstacles to make the Infotrons difficult to get to, and you have to deploy a variety of tactics – from pushing boulders onto enemy forces to placing exploding floppy disks in the right place before detonation. Once you've collected all the Infotrons, you can move on to the next level.

You only have one life, but once you've completed a level there's no need to replay it every time (more games programmers should realise people don't want to have to play early levels every time they play a game). And with plenty of levels to tackle, you are sure to be in for hours of *Infotron*.

Murphy the gumball manages to keep on smiling even though he is stuck inside a horrible PC. He should have known Macs are much more friendly.

muttering 'Bah, humbug' under your breath for the next few weeks.

Align Folders

DESKTOP UTILITY

Postcardware

The clue is in the title, as they say in all the worst game shows. All the way from Australia, *Align Folders* simply moves those open windows from a random mess into a neat row of military precision. This is a handy little tool if you have the nasty habit of opening 20 windows all at once and then want to get to one that's somewhere in the middle. Run *Align Folders*, and you'll have access to the lot.

FontScan

FONT UTILITY

Shareware, registration fee $5

Not all software shows you what fonts actually look like on the screen, but with the help of *FontScan* there's no need to be left guessing until you print a document. *FontScan* can either scan all or particular selected fonts from those in your System Folder, and the result of the scan is then displayed on the monitor at any size between 1 and 72 point. If you were really sensible, you could also print out an example of each font just to make sure it really is the one you want. One of this utility's strengths is its ability to view font collections containing up to 500 different typefaces – if your System Folder has room for that many.

3D Surfaces

GRAPH DRAWING SOFTWARE

Freeware

Trying to draw graphs in maths at school was never really a highlight – the lines always wobbled and half the time the calculations were wrong in the first place. *3D Surfaces* changes all that by taking a boring old equation in the form of z=x+y (or is that 'sexy', as the spell checker suggests), and generating a pretty, coloured 3D graph.

Drawing graphs may sound boring, but the results are quite astonishing and even maths haters should have a quick look at *3D Surfaces*. Maths students will find this program helps them to visualise all those nasty equations, while the rest of us can appreciate the attractive patterns.

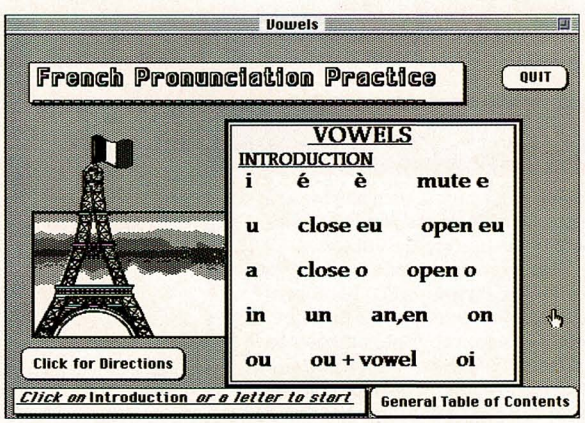
DesktopValet 3.0.1

DESKTOP UTILITY

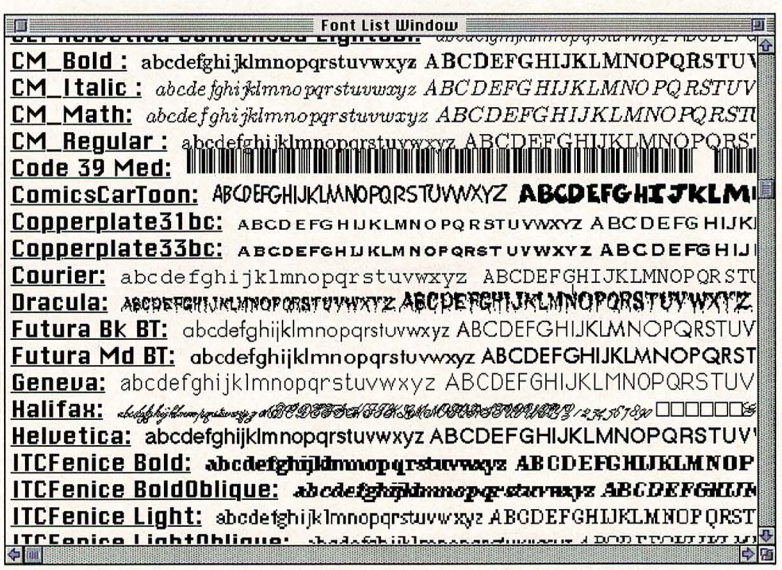
Freeware

This freeware claims to help you end Desktop clutter forever – and having seen some of the Desktops in the MACFORMAT office, that's quite a boast.

DesktopValet 3.0.1 clears up some of your boring Mac housekeeping tasks – you simply click on its radio type buttons to Move, Delete, Alias or Shred. The idea is to have four copies of the program on your Desktop, each named after the operation it performs. Then all you have to do is drag files you've finished using onto the icons to do the business. Move, Delete and



Next time you're in France you'll be able to buy a ticket for the Metro or lots of Vin de Table in perfectly enunciated French, thanks to *Pronunciation Tutor.*



Cut out all the guesswork and choose the right font, whatever software you're using. All you need is a copy of *FontScan*, which scans in your chosen fonts and displays them on your monitor.

$401K PLANner 2.2

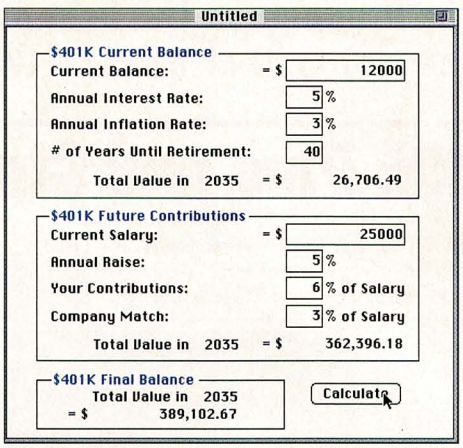
PENSION UTILITY

Shareware, registration fee $14.95

Pension schemes are an important fact of life if you want to live on more than beans and breadcrumbs when you retire. The daftly-named *$401K PLANner* helps you work out how many millions you will have in your funds, so you can live it up a bit when you're finally set free from the shackles of employment.

Using *$401K PLANner*, you simply enter the amount of your investment, interest rate and time till retirement, and it calculates the return you'll get when you retire. However, this shareware demo version is restricted – you can't edit the interest rate, your salary, or the number of years until retirement. All you can do is take a quick look at one pre-defined calculation, unless you cough up the shareware fee of $14.95.

Shareware is supposed to be 'try before you buy', but this demo version only really enables you to look and see if it's pretty – you can't properly check its abilities. *$401K PLANner 2.2* looks reasonably useful, and may even help you plan your future investments. But then, spend a little time with any spreadsheet application and you could knock together a formula that does everything this program can without having to part with a shareware fee. All of which means more money for the pension fund, of course.


Untitled
$401K Current Balance
Current Balance: = $ 12000
Annual Interest Rate: 5 %
Annual Inflation Rate: 3 %
# of Years Until Retirement: 40
Total Value in 2035 = $ 26,706.49
$401K Future Contributions
Current Salary: = $ 25000
Annual Raise: 5 %
Your Contributions: 6 % of Salary
Company Match: 3 % of Salary
Total Value in 2035 = $ 362,396.18
$401K Final Balance
Total Value in 2035
= $ 389,102.67
Calculate

Wouldn't it be great to get your hands on a whopping great pile of cash? *$401K PLANner 2.2* can help you, but you'll have to wait until you retire.

Alias are familiar commands, while Shred cuts a file into little pieces and makes it irretrievable. Yes, that does mean you have no way of recovering it, so make sure you really do want to get rid of it for good first.

Now this is being picky, but if it was to do its job properly, *DesktopValet* would need to automatically work out when you'd finished with a file, then decide if you were ever going to need it again. Clairvoyantware, you could call it – automatically deleting files you were never going to use in the future. Just think of the disk space you'd save.

But as clairvoyant software is a bit beyond current technology, what *DesktopValet* does is fine. One minor thought springs to mind though: doesn't having four extra icons on your Desktop clutter it up even more?

French Pronunciation Practice

LANGUAGE TUTOR

Freeware

There's no escaping the fact that we are now part of the European community, so it's time we all sat down and learnt a language. As a nation, the furthest we usually get with French is 'weeeee' and 'merrrceee'. Phrase books are fine, but it's all too easy to mispronounce even simple phrases. So how about getting your French pronunciation sorted out once and for all?

This *HyperCard*-based tutorial should help you along the way. It displays the words in written form, then with just a mouse click you can hear them pronounced. *French Pronunciation Practice* helps you get past the common problem areas and towards speaking comprehensible French.

There's also a quiz section, so you can try and match your elocution to that of a native. What this software won't do is teach you a multitude of phrases, but there are plenty of books available which will sort that out once you know the basics. So why not try *French Pronunciation Practice* out and get beyond the hypermarket in Calais on your next continental visit?

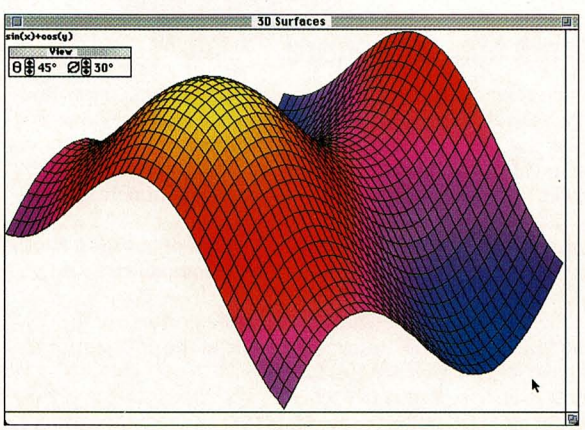
Show!

GRAPHICS UTILITY

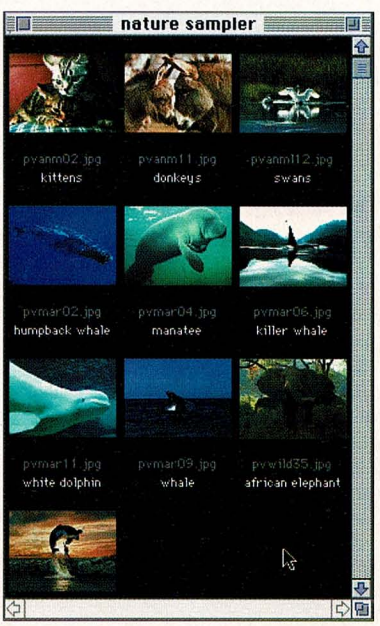
Freeware

If you've been collecting MACFORMAT CD-ROMs over the last few months, you'll have quite a collection of digital images. It's easy with such a big collection to lose track of where one particular image is stored, and the filenames never help unless you have a catalogue to refer to. Finder icons can help your search, but they are often too small to see the detail you need.

Show! enables you to create and manage sets of thumbnails, which are about the size of a 35mm slide. The previews are created from original image files that you locate from your filing system. *Show!* can read and display previews of images created in the original program, such as *Photoshop*, or if the image is a JPEG, you can create your own previews. Once they're imported into a *Show!* document, you can move or copy them between documents, make a slide show, or open the original images for full-scale viewing. You can also attach a more meaningful title to the preview with an easy point, click and edit system. With a little time and planning you'll have a library of easily accessible images. **MF**



An object created in *3D Surfaces*. Pretty, isn't it? Can this really be something to do with mathematics?



Create thumbnails of all your graphics files and keep them tidy and easily accessible, using *Show!* By the way, did you know that more people get kicked to death by donkeys each year than die in air crashes?

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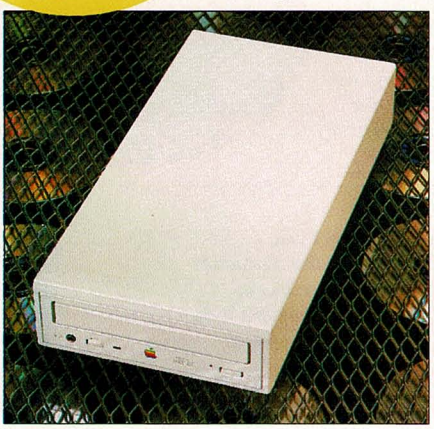

Join the multimedia revolution with this top hardware plus software deal – Apple's own double-speed CD-ROM drive, plus the brand new *Cinemania '95* at no extra cost! The CD300E is a caddyless double-speed drive capable of playing Photo CDs and audio CDs as well as CD-ROMs. *Cinemania '95* is the latest edition of Microsoft's definitive multimedia reference guide to films.

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CD-ROM Treasure Pack 1

Something for everyone: fun, facts, art and productivity. And all for a bargain £29.95 – that's just £2.95 per CD.

- **Clip Art Novice.** 200 clip art images in EPS and TIFF formats.
- **Photo Pro Volume 3: Fotobank.** Over 100 high res, 24-bit TIFF photos.
- **Gallery of Dreams: Surreal Imagery.** Vivid 24-bit TIFFs to test the mind.
- **Photo Pro Volume 6: Flowers.** Photographs for the natural touch of beauty.
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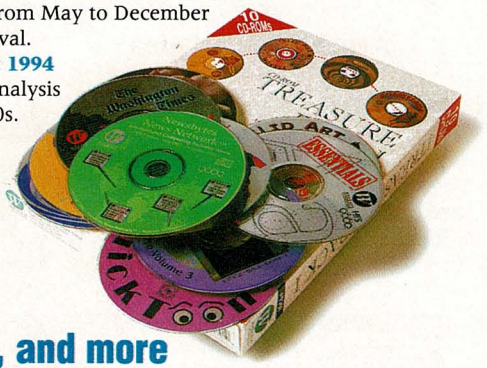

CD-ROM Treasure Pack 1
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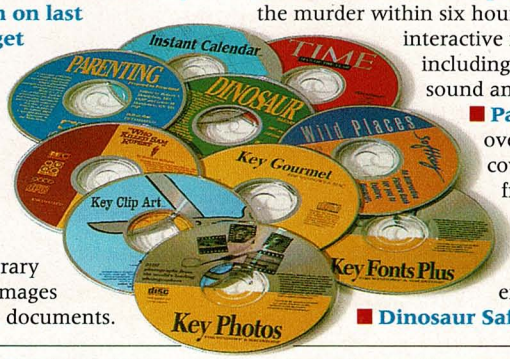
SoftKey Ten CD Pack – ten CDs for only £29.95!

Fonts, clip art, games, edutainment, a cooking program, and more



- **If you liked the 303 fonts in the Key Fonts Plus collection on last month's Cover CD, get these companion CDs – some handy, others fascinating!**
- **Key Home Gourmet.** A sophisticated and powerful cooking program for you and your Mac.
- **Key Clip Art.** A library of 5,000 quality TIFF images to copy into your own documents.
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SoftKey Ten CD Pack
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C•A•T 4

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Save £33 off the normal selling price!

C•A•T 4 is an off-the-shelf relational database offering word processor, DTP and spreadsheet functionality – basically it's the ultimate contact manager for your company, and can be tailored to meet your specific needs. It can even create documents linked to its built-in time management feature.

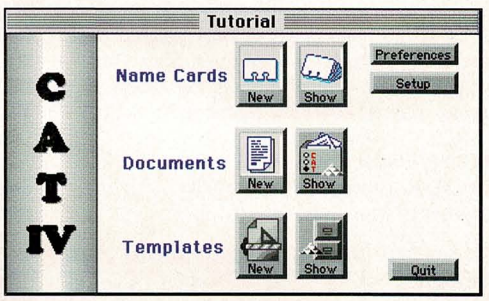
C•A•T 4 offers seriously impressive filing and retrieving abilities. All the documents (letters, invoices, call logs, etc) that you create are filed automatically by time and date, to each contact you communicate with. This enables you to review, at any time, a full history or single item of correspondence with any company or individual. Anyone with professional, business, or personal requirements can benefit significantly from *C•A•T's* ability to display all your communications quickly and easily, whether written, spoken or faxed.

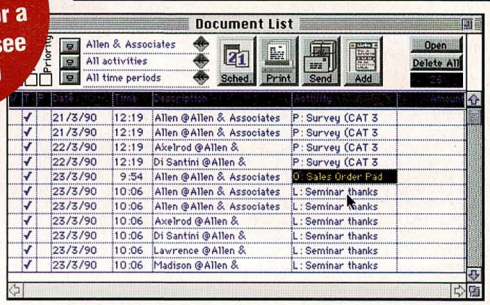
Because the software is so versatile a customised solution can be developed cost effectively to suit any business no matter how large or small. All it requires is the production of document templates specific to the job function. Examples of what it can successfully manage include:

- Sales & marketing tracking
- Architecture project management
- Time and job costing recording
- BS5750 administration control
- Designer job bag system

There's a 90-day fully functional version of *C•A•T* on this month's Cover CD, so you can take a look for yourself to see just how powerful the software can be.

A 90-day trial version is on the Cover CD. For a full review see page 100




Document List
Allen & Associates
All activities
All time periods
Sched.
Print
Send
Add
Open
Delete All
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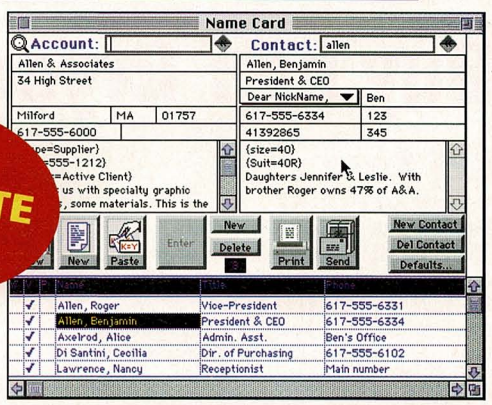
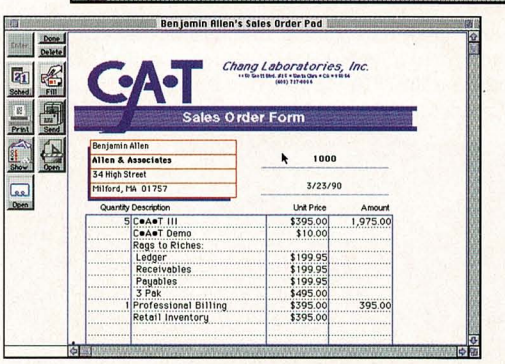


FREE TEMPLATE DESIGN

Free template design!

To ensure that you get started with *C•A•T* quickly and with a minimum of fuss, the makers of *C•A•T* are offering two hours of free template design for every new MACFORMAT buyer who purchases the full version. Simply fax over your template designs and they will be put together and returned on disk.

Once you have *C•A•T* installed, you will never again have an excuse for missing an appointment or deadline, having long overdue invoices, forgetting to make a follow-up call, or losing correspondence. With *C•A•T* organising your administration you'll see increased efficiency and profitability almost immediately. Take advantage of this special MACFORMAT offer and you can buy *C•A•T* for only £189 – a saving of more than £33 on the normal selling price. You'll also be able to make use of the *free* template design service to set *C•A•T* up to work the way you want.



C•A•T 4 **Order code: MCFCAT4** **Price: £189**

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COLOR-IT!™

Version 3.0.4

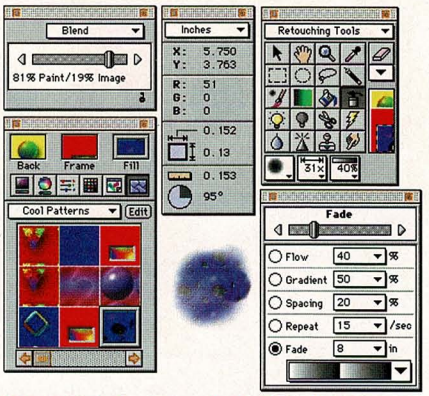
3.0.4 special upgrade offer

We gave away *Color It! 2.3.5* on last issue's Cover CD-ROM and floppy disk (and if you missed it, see the opposite page to order your copy). Now we give you the exclusive chance to upgrade to the NEW *Color It! 3.0.4*, to give you image editing features that are on a par with those of the mighty *Photoshop*. This latest version of *Color It!* offers a range of new, powerful features, including:

- Fully-native PowerPC version
- CMYK four-colour separation
- RGB channel editing
- Extrude and drop shadow filters
- User-defined Undo levels (up to 16)
- Levels and Curves filters
- Unsharp Masking filters
- Bezier Brush tool
- Kernel Brush tool
- Crop tool
- Live filter previews
- Palettes combined to save screen space

...and much more.

Color It! has come a long way – version 3.0.2 rated a storming 88% in MACFORMAT 28. So



If *Photoshop* is beyond your budget, then the latest version of *Color It!* is a serious alternative.

don't miss out on this opportunity. Available nowhere else in the UK, the *Color It! 3.0.4* upgrade is available from MACFORMAT for a limited period. It can be yours for only £44.95, inclusive of delivery and VAT.

Price: £44.95
Order code: MCFCT3

Buy KPT Bryce and get two FREE CDs

KPT Bryce

SAVE OVER £35 ON RRP

(MACFORMAT 20: 91%)
You can produce incredible landscapes on your Mac using *KPT Bryce*. It offers complete control over the form of your terrain – clouds obey your every mouse-click and a thunderstorm can be conjured up in seconds. Or you can journey into outer space and visit unknown planets.

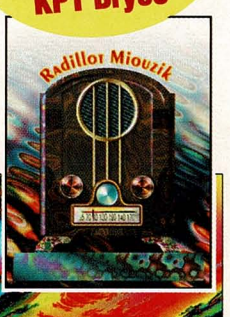
Once you've started to use *Bryce* you'll be unable to stop creating wonderful graphics – it's that compulsive. Reviewed in MACFORMAT 20, it scored an impressive 91%. It requires an LCII or better (as long as it has an FPU), 4Mb of free RAM, and System 7 or later.

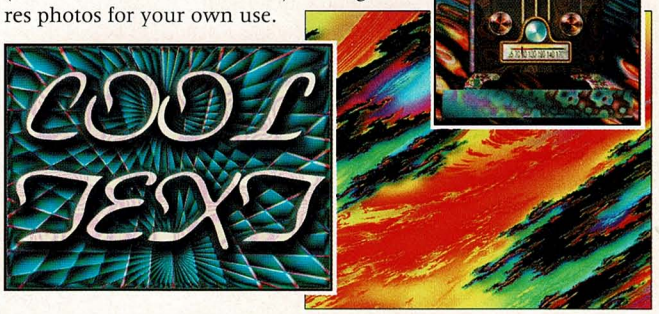
KPT Bryce **Price: £115** **Order code: MFKPT**

HSC Tips and Tricks CD and KPT Power Photos Digital Catalogue CD

FREE these two CDs when you buy KPT Bryce

Every purchase of *KPT Bryce* comes with these two special CDs from Kai Krause. *HSC Tips and Tricks* provides demo filters, sample images and great ideas. The *Digital Catalogue* contains samples of volumes one to five of the *KPT Power Photos* collection (rated 89% in MACFORMAT 28) and high res photos for your own use.





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MACFORMAT Back Issues Complete the set – only £5 each, including p&p.

ISSUE 20

January 1995

■ **On the disk:** build worlds with *Fractal 1.2; Maniac 2.1.1; RAMDisk+ 3.23*

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available

■ **Inside:** virtual reality special: *KPT Bryce* and *Star Trek Tech Manual; Word 6* vs *Nisus Writer;* how to write games for your Mac

Order code:
HD Disk MFHD20

ISSUE 21

February 1995

■ **On the disks:** *VideoShop 2.0;* plus 3Mb of games and utilities; *Trojka; WordSmith* and shareware

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available

■ **Inside:** video editing on Macs: how to do it; budget games; and what to buy if you run out of disk space

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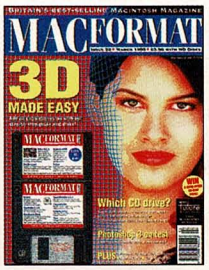
HD Disk MFHD21



ISSUE 22

March 1995

■ **On the disks:** *Infini-D* demo; *MacConcept; Blobbo*

■ **On the CD-ROM:** 3D spectacular; *The Crystal Rainforest; VideoFusion*

■ **Inside:** how to create 3D images on your Mac; *Photoshop 3.0* reviewed; font problems solved; CD-ROM drives tested; and the most realistic flight sim ever

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ISSUE 23

April 1995

■ **On the disk:** *Oh-no! More Lemmings; StuffIt Lite 3.5*

■ **On the CD-ROM:** comics collection; *PAWS; Sources of Faith; Marathon*

■ **Inside:** comics on the Mac – interviews, reviews and how-to's; *FreeHand* vs *Illustrator;* colour printers; reviews of *XRes* and the best Mac game ever – *Marathon*

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ISSUE 24

May 1995

■ **On the disk:** *Graphic Converter; MacCheckers!*

■ **On the CD-ROM:** demos of five top DTP programs, including *QuarkXPress* and *PageMaker,* plus *Photoshop 3.0* and *ClarisWorks 3.0*

■ **Inside:** every Mac DTP package reviewed and rated; colour scanners; networks explained; *PhotoFix* reviewed

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ISSUE 25

June 1995

■ **On the disk:** *Knot 1; MacSnails; Glypha 3, TypeIt4Me, Electric Poet* and MIDI files

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available.

■ **Inside:** all you need to know about PowerMacs, fax-modems tested; plus some 'Cosmic' CD-ROMs

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ISSUE 26

July 1995

■ **On the disk:** animation programs, *Disinfectant 3.6*

■ **On the CD-ROM:** demos of *ProMotion, Amazing Animation, Elastic Reality, Morph* and *Circus,* plus *3D Dinosaur Adventure.*

■ **Inside:** animation on the Mac; 15- and 17-inch monitors reviewed; comms made easy with *TeleFinder*

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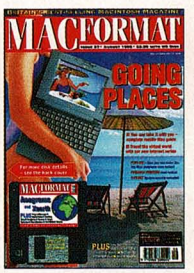

ISSUE 27

August 1995

■ **On the disk:** *Anagrams, Word Breaker, Smart Calendar, Xearth* and *BattleTanks*

■ **On the CD-ROM:** sorry, the CD-ROM edition is no longer available

■ **Inside:** the complete guide to portable Macs; Internet basics series; plus portable printers reviewed.

Order codes:
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ISSUE 28

September 1995

■ **On the disk:** *Catch The Buzz, Lobster, DragThing.*

■ **On the CD-ROM:** *Color It!, Dark Forces, Circle Elements* and *WorldWrite* demos, plus over 75 high-res clip photos.

■ **Inside:** image editing; what those Extensions and Control Panels *do*; graphics tablets, PaperPort scanner and *Dark Forces* reviewed.

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ISSUE 29

October 1995

■ **On the disk:** clip art, games and utilities, fonts.

■ **On the CD-ROM:** clip art, 55 high res photos, Bomb Busters, *Discworld* demo.

■ **Inside:** eye-catching black-and-white DTP; clip art collections, *KPT Vector Effects,* language learning software and multimedia encyclopaedias reviewed.

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HD Disk MFHD29

ISSUE 30

November 1995

■ **On the disk:** *MacPipes, MacQubic, Gossamer.*

■ **On the CD-ROM:** HTML authoring software, *QuickEditor,* QuickTime 2.1, *SmartSketch* demo.

■ **Inside:** publishing on the Net and CD-ROM, QuickTime utilities, *Alone in the Dark, SmartSketch,* input devices – alternatives to the mouse.

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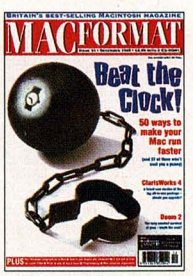

ISSUE 31

December 1995
Double-disc special!

■ **On two disks:** *Color It! 2.3.5* – full version, *Factory*

■ **On two CD-ROMs:** *Color It! 2.3.5* plus fonts, clip art, and more. *Acrobat Reader.*

■ **Inside:** 50 ways to make your Mac run faster, *ClarisWorks 4, Doom 2, SoftWindows,* personal organisers, programming.

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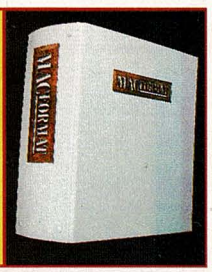

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Colonization

The follow-up to *Civilization* ploughs in and colonises itself firmly on your hard disk. Jillian Werb hands out the matchsticks and strong coffee.

It's 2am, and you have no intention of going to bed. You're involved in a battle to establish your colony, rout the Spanish, convert the Indians, trade the Dutch into oblivion, and gain independence from the evil British Empire – and it's a race against time. Your colonists are colonising, pioneers clearing and ploughing, soldiers defending, scouts exploring, frigates battling and ships trading. You've got several successful trade routes established; a couple of caravels in London picking up new settlers, selling cargo and buying in artillery; another exploring unknown seas; missionaries trying to convert the heathens; and you're involved in a pact with the French against the violent Spanish. And you're supposed to be at work at 9am.

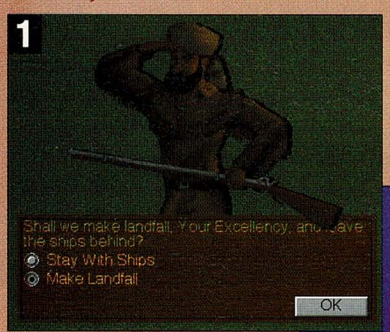
Colonization follows the seminal *Civilization* – the game that established Sid Meier as the master of the strategy game genre. *Civilization* entailed developing your own personal civilisation, starting from the Stone Age – the result was a mass outbreak of disrupted sleep patterns. Since its appearance, several other strategy games have developed the genre, notably *SimCity*. More than just a rehash of its predecessor, *Colonization* is equally addictive and offers you much more detail, taking place over only 300 years.

Power corrupts

You are Viceroy of the New World. You start with a ship and a few colonists and sail west, with the eventual aim of gaining independence from the British Empire. To do this, you

Building a New World

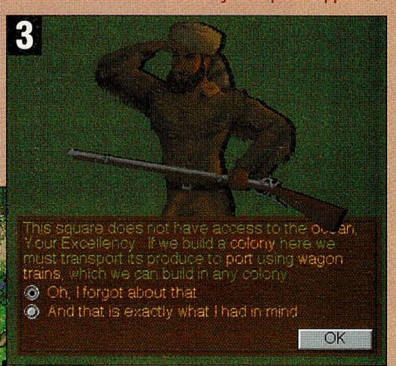
You discover the New World by simply heading west. Next you choose where to make landfall.

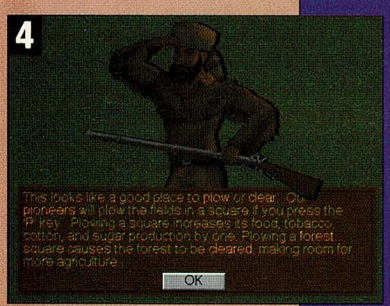


The local terrain determines your colony's ability to produce food.

2
Colonizopedia
(Tropical Forest Terrain Type)
Farmer: 3 Plow/River: +1 Expert: +3
Sugar Planter: 1 Plow/River: +1 Expert: x2
Fur Trapper: 2 Road/River: +2 Expert: x2
Lumberjack: 4 Road/River: +2 Prime Timber: +4 Expert: x2
Move Cost: 2 Defense or Ambush Bonus: +50%
TROPICAL FOREST
This is humid wooded country that is good for woodcutting and trapping fur.
Becomes Savannah (good for sugar) if cleared.

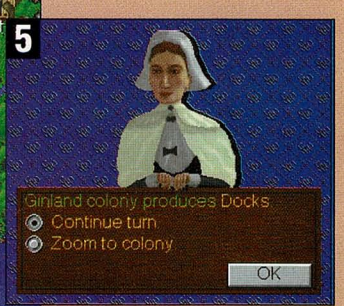
If the terrain is suitable, you can instruct your colonists to establish a colony. Cue polite applause.


3
This square does not have access to the ocean, Your Excellency. If we build a colony here we must transport its produce to port using wagon trains, which we can build in any colony.
Oh, I forgot about that
And that is exactly what I had in mind
OK


4
This looks like a good place to plow or clear. Our pioneers will plow the fields in a square if you press the 'P' key. Plowing a square increases its food, tobacco, cotton, and sugar production by one. Plowing a forest square causes the forest to be cleared, making room for more agriculture.
OK

Your pioneers can plough fields to improve the productivity of the land.

The main map, showing how much of the New World (GeeBabyland) you've discovered so far.

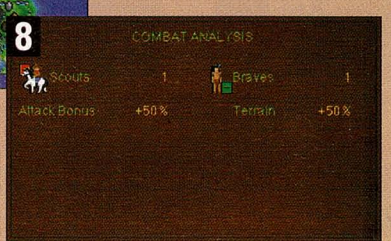


Once you've built the docks, your colonists can start fishing.

Once you've produced a cargo, you must either store it or transport it to Europe to sell.

7
Discoverer Jill: We are concerned that the Crown is not receiving its due share of New World revenue. We have therefore decided to impose a new Navigation Act, raising your tax rate by 4%. The tax rate is now 5%. If you wish, you may kiss our royal pinky ring.
Kiss pinky ring
Hold 'Cottonville Cloth Party.'
OK

If you want to continue selling goods to Europe, you have to kiss the King's pinky ring. Greedy old git.



You can either form a pact with other colonising forces or elect to go to war.

must explore the world you discover and establish a successful, self-sufficient group of colonies, producing food and goods of all descriptions. This involves making the most of your colonists' skills and choosing suitable land on which to build your colony. You must trade with the old world, learn to live with the natives (exploit them and you'll lose points) and educate your people. As if that wasn't enough, you also have to keep an eye on the other colonising forces – the French, Spanish and Dutch. Naturally, a few other loose cannons are occasionally thrown into the equation.

The burden of authority

Colonization isn't an immediate pick-up-and-play game – there's a lot to learn – but it simplifies things with a novice setting which gives you hints and tips when you need them. It takes a few hours to get going, particularly if you've never played *Civilization*, but it's as easy as you could expect for a game this complex.

Once you've got into the game, you're hooked. Obsessed with the welfare of your colonies, you worry whether they're producing enough food. Should they diversify away from furs, what with the price dropping in London? Can they withstand the threat of the marauding Spanish? Meanwhile, your ships sail to Europe laden with cargo and return with immigrants and artillery. Other ships transport raw materials from one colony to another. It's a lot to have on your mind at once.

You start muttering instructions to yourself, spluttering with indignation at the king's latest tax rise, sniggering as you rout the Spanish and convert a few Indians, and chortling with pleasure when a colonist develops a new skill. You keep meaning to save the game and go to bed, but somehow something keeps coming up.

The main screen. The Area Map displays the world discovered so far; top right is the overall map showing how much is left unexplored; and guess what the Info Window (bottom right) does.

The view of your colony. Here you set your colonists to work, build structures, produce goods, load cargo for Europe, educate your people, create Liberty Bells...

MACFORMAT Classic

Side issues

Colonization isn't quite perfect. The graphics are cute and functional, but nothing special. The control system, despite being intuitive, is occasionally slow and frustrating, and the data isn't always easily accessible – but you can generally get the information you need somehow. The sound is quietly suitable – just the occasional gunshot or the odd fanfare and applause when you establish a colony or build a new structure. But you don't need grandiose effects with this kind of gameplay. Steeped in strategy, *Colonization* is utterly compulsive – a classic and worthy follow-up to *Civilization*, and a great game in its own right. **MF**

COLONIZATION

Price: £40. **Out:** now.
Requires: LCII or better, 8Mb of RAM, System 7 or later, 256-colour monitor, 13Mb of hard disk space, CD-ROM drive.
Contact: MicroProse on 01454 326532.

GRAPHICS 70%
Nothing special, but they're functional and occasionally cute.

SOUND 80%
Understated but atmospheric.

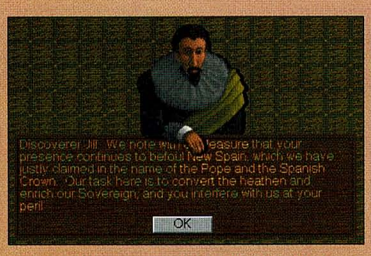
GAMEPLAY 95%
Addictive, complex, long-lasting, frustrating...

MACFORMAT RATING 93%

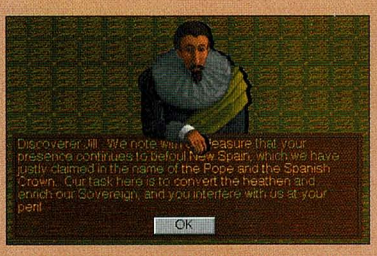
TO BE SPECIFIC

You should be able to run *Colonization* on an LCII, but the result probably wouldn't be too great. *Colonization* will really run best on a Quadra or higher.

COPING WITH THE NEIGHBOURS

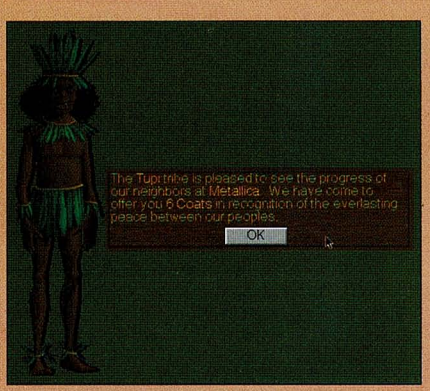

Discoverer Jill. We note with pleasure that your presence continues to befoul New Spain, which we have justly claimed in the name of the Pope and the Spanish Crown. Our task here is to convert the heathen and enrich our Sovereign, and you interfere with us at your peril!
OK

The Spanish, who are also settling the New World, are renowned for their ruthless violence. You're bound to come into conflict with them...


Discoverer Jill. We note with pleasure that your presence continues to befoul New Spain, which we have justly claimed in the name of the Pope and the Spanish Crown. Our task here is to convert the heathen and enrich our Sovereign, and you interfere with us at your peril!
OK

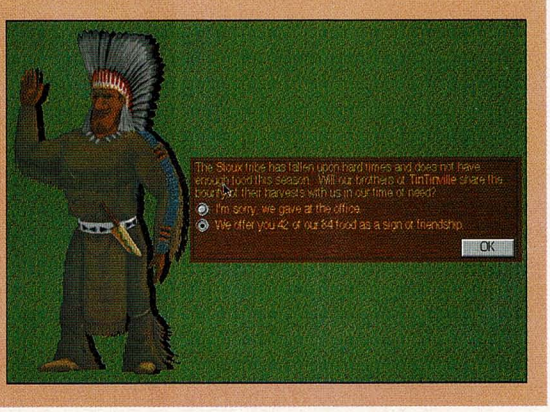
...which leaves you with a choice. You can either refuse to enter battle, and pay the penalty, or you can defend your country proudly.

Good for you. But are you ready for war? Do you have plenty of artillery and soldiers? Better make sure before you make any rash decisions.


The Tupi tribe is pleased to see the progress of our neighbors at Metallica. We have come to offer you 6 Coats in recognition of the everlasting peace between our peoples.
OK

You can choose how to deal with the Indians. Leave them alone and they're friendly, helpful and even generous...

However, they might call on your support when things start going badly. Give them that support and you gain points, though.


The Sioux tribe has fallen upon hard times and does not have enough food this season. Will our brothers at TinTinville share the bounty of their harvests with us in our time of need?
I'm sorry, we gave at the office.
We offer you 42 of our 84 food as a sign of friendship.
OK

Wing Commander 3

Cut a dashing figure as Colonel Blair versus the pointy-toothed enemy in this interactive movie of epic proportions. Nigel Silver prepares for action.

BLAIR

You're probably well aware that Mark Hamill played Luke Skywalker in the *Star Wars* trilogy. You probably haven't seen him in anything since, either. However, you may have heard him as the excellent voice of the Joker in *Batman: The Animated Adventures.*

While other games developers skirt coyly around the term 'interactive movie', Origin shout it with shameless zeal, emblazoning the claim, 'the first true interactive movie' across the box. So, is it a game? Or is it a film?

It's both, sort of. The *Wing Commander* games have always supplemented their space shoot-'em-up action with a strong narrative, and the latest one merely goes a stage further, revealing the storyline through a series of cinematic video sequences. While you can occasionally interrupt these to decide where the story will go next, mostly they're just there to provide a purpose to the flying sequences. And they work very well, turning what would otherwise have been a run-of-the-mill shoot-'em-up into a compelling interactive movie.

Blair (or, in fact, you) tries the Goodyear blimp routine on Eisen.

Things aren't going well for the human race. Although the official line is still positive, the news from the frontline is that the furry Kilrathi are gaining the upper hand. There are even reports that a partial evacuation of Earth is planned, with essential personnel being shipped off to another galaxy to start afresh, while the rest of the planet is left to its fate. Meanwhile, the Confederation forces fight on, and on board the space station Victory, Colonel Blair has arrived as Wing Commander, to a mixed reception from the pilots.

You are Blair, played by Mark Hamill of *Star Wars* fame in the video clips. Despite being Blair, you get to see things that he doesn't. For example, Blair knows that Devereaux, his French-accented girlfriend, is on a secret mission, but doesn't know she's been captured by the ruthless Kilrathi. This dual perspective is odd, but it keeps the story interesting.

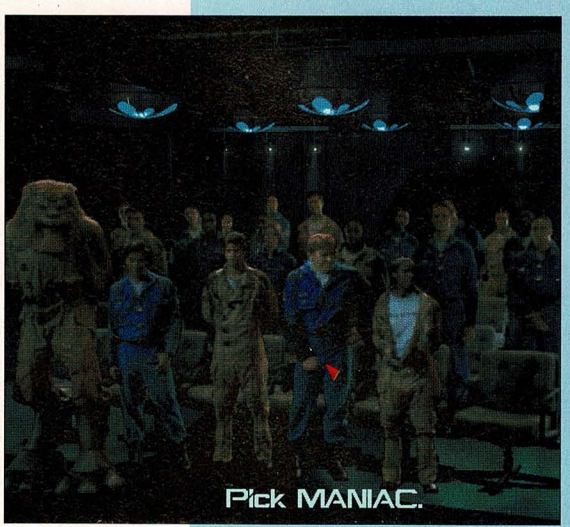
Having wandered around the Victory, chatted to the other pilots and been given a briefing, you're launched into your first mission. At this stage, the cinematics are temporarily dispensed with, and you're in full control. The view is initially from the cockpit of your spaceship, although you can select a variety of others, including one from behind your ship that gives a better sense of orientation. The autopilot guides you between mission waypoints, but as soon as your scanner detects anything suspicious it cuts out. Kilrathi ships then hurtle towards you in a hail of laser bolts, and, after radioing to your wingman to break formation and attack, you can set off in pursuit. Much of your time is spent wheeling around the sky attempting to zap baddies with your guns, which seem incredibly ineffectual and hardly ever hit anything.

On later missions you attack Kilrathi capital ships. These are tough and bristling with laser turrets, but don't worry – there's a special missile for dealing with them. You also get to skim along the surface of planets on later missions, but the graphics here are a serious letdown in comparison with the rest of the game, with tedious views of the surfaces and skyscrapers protruding at peculiar angles.

Comrades in arms

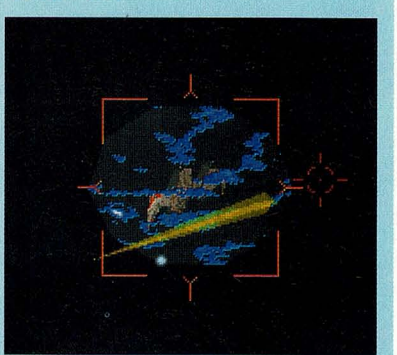
A unique aspect of *Wing Commander 3* is the presence of a wingman on every mission. He can be ordered to attack baddies at his own discretion, concentrate on whichever target you're

NOW WITH ADDED WINGMEN



Before each mission you have to choose a wingman from these chaps. For the first mission you can only have Hobbes, but thereafter you can take your pick from Cobra, Flint, Vaquero, Vagabond, Maniac, Flash and anyone else the plot throws up.

You're in the air, and a Kilrathi has the audacity to insult you. This clearly won't do.



You fix the Kilrathi in your sights and fire. Then, as he attempts to wriggle free, you call up assistance over the radio.

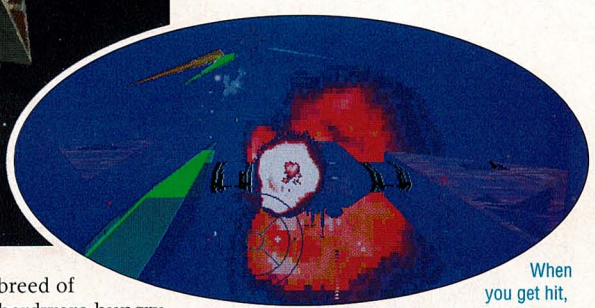
Flint locks on and fires, and our furry friend is forced to eat his words, washed down with the remains of his spaceship.

This viewpoint shows your knees clearly, but obliterates much of the action.

A Kilrathi capital ship succumbs to your special anti-Kilrathi capital ship missile...

You can resize the window in which the graphics are displayed if you want to speed things up.

...and this is what the Kilrathi capital ship looked like just before it succumbed to your special anti-Kilrathi capital ship missile.



When you get hit, everything goes blue momentarily. Or does that mean 'in a moment'? Er.

attacking, deal with anyone on your tail, or return to base for repairs, and he makes the game that little bit more exciting and involving. Your choice of wingman is also crucial: your best friend is Hobbes, a Kilrathi defector who (as is constantly made clear) is completely trustworthy. However, if you keep choosing Hobbes, the rest of the crew will become alienated. Other choices are Vagabond (who's got a mysterious past), Maniac (a brilliant pilot but a bit of a loose cannon), or Flash (who doesn't seem to like you much). More wingmen are introduced as the game progresses.

Between each of the 50 missions a little more of the story unfolds. The actors, including John Rhys-Davies (from *Indiana Jones and the Last Crusade*), Tom Wilson (*Back to the Future's* Biff) and Malcolm McDowell (*If* and *A Clockwork Orange*), turn in excellent performances – much better than you'd normally expect from this sort of thing – and they've been blended in well with the computer-generated backgrounds. *Wing Commander 3* is one of the very few interactive movie games that doesn't induce drooping eyelids and an urge to lunge for the mouse button and click through the movie scenes every time the CD starts to whirr, which is a credit to its high production values.

One of the ships you can choose from. Others become available as you progress.

Hardware maniac

So why doesn't *Wing Commander 3* score more than 81%? Because while the graphics are beautifully detailed, they have a tendency to slow down the game at crucial moments. We played it on two 7100/66 PowerMacs and a Performa 5200 and, believe it or not, it ran better on the 5200. What it comes down to is the CD-ROM drive: the 7100s had double-speed CD-ROM drives, whereas the Performa had a quad-speed monster. On the double-speed drive those scary Kilrathi capital ships jump across the screen, making it difficult to lock onto them and blast them into oblivion – a major setback when it's a case of you or them. There were also problems like coming out of autopilot and finding that the freighter you were protecting had completely vanished, effectively bringing an end to your mission. On the quad-speed, targeting wasn't a problem, although the capital ships weren't exactly smooth as they ploughed across the screen. But the faster your CD-ROM drive, the better the gameplay.

Wing Commander 3's system requirements are typical of the emerging breed of hardware hungry games – phenomenal. But this is a game that's been produced to an extremely high standard – the flight sequences and film clips have been given equal attention by its designers, and the two are fused seamlessly. *Wing Commander 3* is a thing of beauty and a good game too, but don't even contemplate buying it unless you've got a formidable Mac setup. **MF**

WING COMMANDER 3

Price: £58.74. **Out:** now.
Requires: PowerMac with Level 2 RAM cache card, 8Mb of RAM, System 7.1 or later, 256-colour monitor, 25Mb of hard disk space, double-speed CD-ROM drive, mouse. 16Mb of RAM and joystick recommended.
Contact: Electronic Arts on 01753 549442.

GRAPHICS 80%
Extremely well put together, although they're only 256-colours, and they do slow your Mac down in places.

SOUND 80%
Exciting, although the music can grate a bit.

GAMEPLAY 83%
A teeny bit repetitive, but the narrative urges you to keep playing.

MACFORMAT RATING 81%

Here's Hobbes, the cheery Kilrathi defector and wingman.

Burn:Cycle

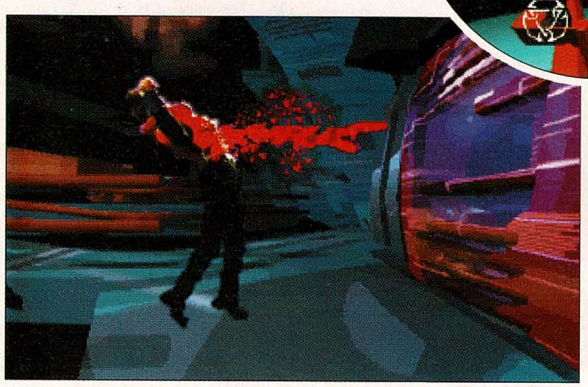
The latest interactive movie is neither hot enough to burn, nor rounded enough to cycle, and it's got absolutely nothing to do with mountain biking...

Not getting the point in *Burn:Cycle* is okay, because there doesn't seem to be one. *Burn:Cycle* is one of those interactive movie affairs, with a predictably cyber-futuristic setting (think *Bladerunner* or *Videodrome*). Cutter, a data thief, tries to break into a computer and gets a deadly virus in his brain. Attempting to save Cutter, you have to play through a series of puzzles, watching the plot develop via the video clips that string *Burn:Cycle* together as a story.

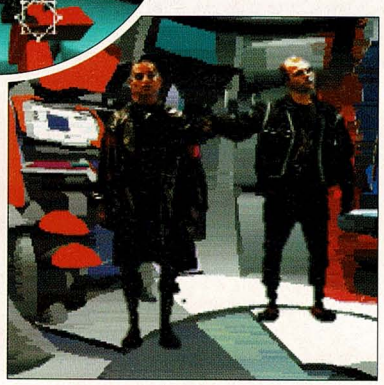
It's not such a bad story as interactive movies go. The dialogue's certainly better than the vacuous banter of *Daedalus Encounter*, and Trip Media (the company who developed the game originally for the CD-i) have managed to make it atmospheric enough. The characters are entertaining enough, and there's even an unexpected twist or two.

The graphics and video, however, are both letdowns. Whether it was intentional or not, it's hard to tell, but everything looks as though it's a reproduced television image – you can see the lines between the pixels. As a result the visuals are all rough and vague, and the pre-rendered scenery is nowhere near as colourful or incredible-looking as it could be. What's more, all the people look like 2D cutouts, even when displayed in life-enhancing video.

Care to gamble in the fittingly named Sum Zero Bar? This is Psychic Roulette, a shapes puzzle.



Just to keep you interested, after you solve the first puzzle you get to see the guts of Cutter's girlfriend decorate Softech's door.



Cutter's the bald one on the right. He evidently knows how to treat a woman.

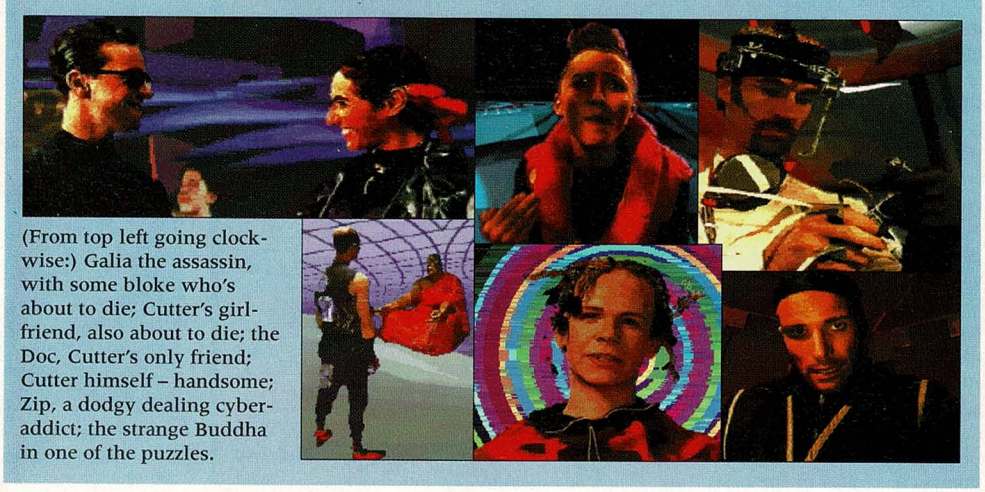
You have two real-time hours in which to complete *Burn:Cycle* – two hours in which to solve puzzles and watch the obligatory video bits in between. But you can save your game, so all you have to do is save the game before you start a puzzle, figure out how to solve it, then load your saved game and solve the puzzle quickly to save time. Easy. From now on, how long the game takes you to complete depends entirely on how good you are at puzzle games. And you don't really have to be that good, because most of them are only fair to middling in their level of difficulty.

Burn:Cycle is, ultimately, a limited experience. You might play it through once in the hope that the story and puzzle-solving will keep your brain engaged. Like other interactive movies, however, it's entirely linear. There's nothing to explore – at one point you get into a hover car thinking you'll be able to explore the city, but no, there are only two places to go to and when you get to them there's not much to explore. And it's all too predictable. For example, in the first few minutes of the game you have to use a bomb to open a door. The bomb, however, actually has a voice to warn people that it's going to go off.

Burn:Cycle's greatest failing is that it conveys no sense of pressure. The time limit is no obstacle, the story provides neither drama nor excitement and the acting lacks any sense of urgency whatsoever – which is doubly bad when you consider the main character only has two hours to live. After a while you really do wonder: just what is the point?

GARRICK WEBSTER

SOME HOT TALENT TO CYCLE THROUGH



(From top left going clockwise:) Galia the assassin, with some bloke who's about to die; Cutter's girlfriend, also about to die; the Doc, Cutter's only friend; Cutter himself – handsome; Zip, a dodgy dealing cyber-addict; the strange Buddha in one of the puzzles.

BURN:CYCLE

Price: £44.99. **Out:** now.
Requires: Quadra or better, 5Mb of RAM, System 7 or later, 256-colour monitor, double-speed CD-ROM drive.
Contact: Philips Media on 0171 911 3094.

GRAPHICS 84%
Atmospheric, cyber and surreal, but not crisp or awesome enough.

SOUND 75%
Old-sounding ambient music from the CD plus reasonably good sound effects. Speech too.

GAMEPLAY 36%
Puzzles are too easy, and there's a distinct lack of urgency to the whole affair.

MACFORMAT RATING 57%

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Frankenstein

MacPlay have given Mary Shelley's classic horror tale a new twist, but how does it shape up to the original? Step into MACFORMAT's laboratory and we'll find out.

As a classic horror story, *Frankenstein* must be one of the most familiar stories of the century, only marginally less milked than *Dracula*. Now it comes to the Mac in the form of *Frankenstein: Through the Eyes of the Monster* as a 3D modelled, gory, graphical adventure game, with the warning that it is aimed at a 'teenage' market. That leaves quite a margin for interpretation, but implies blood, guts, and the odd swear word indicating 'fatherless child'.

You are (or rather, bits of you were) Philip Warren, a convicted murderer hanged for his alleged crimes. Sewn together by Dr Frankenstein, played by veteran weirdo Tim Curry, and given a jump start with a few million volts, you awake on a slab in 'ol Frank's laboratory, with amnesia. You soon decide that the Doc is up to no good and resolve to stop his unholy experiments. Your mission is to recover your identity, thwart Frankenstein's plans, and prove your innocence. This isn't easy – the authorities are unsympathetic to undead convicted killers lurching about proclaiming their innocence. They also frown upon the suggestion that upstanding members of the community are really scalpel wielding maniacs. And Frankenstein carries a gun, which makes reasoning with him tricky. The only course in proving your innocence is to explore the castle gathering evidence of Frankenstein's dastardly deeds.

Ah, this will be one of the many victims to fall foul of NHS waiting times. Should have gone private, mate. Hold on, is this your spleen?

Lurch into action

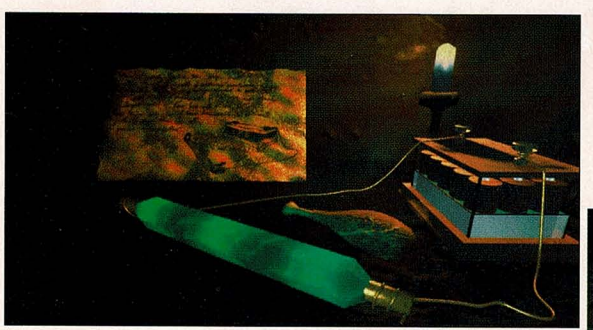
There's lots to see and do in the game, but it's initially lacking in clues as to what you have to do. There is a narrative, however, in the form of your character's voice, which helps you with phrases like 'Ah, now what I need here is one of these...' and 'Hmm, if I could find something to tie this to...' The puzzles are well thought out, and you don't realise you've come across one until you've solved it, which is ludicrously difficult at first.

The quality of the QuickTime footage and sound is excellent, and Tim Curry makes a good Frankenstein. He carries off the part with his individual hammy humour while still being unpredictably menacing – he's hardly Peter Cushing, but the egotistical mad Doctor part suits him well.

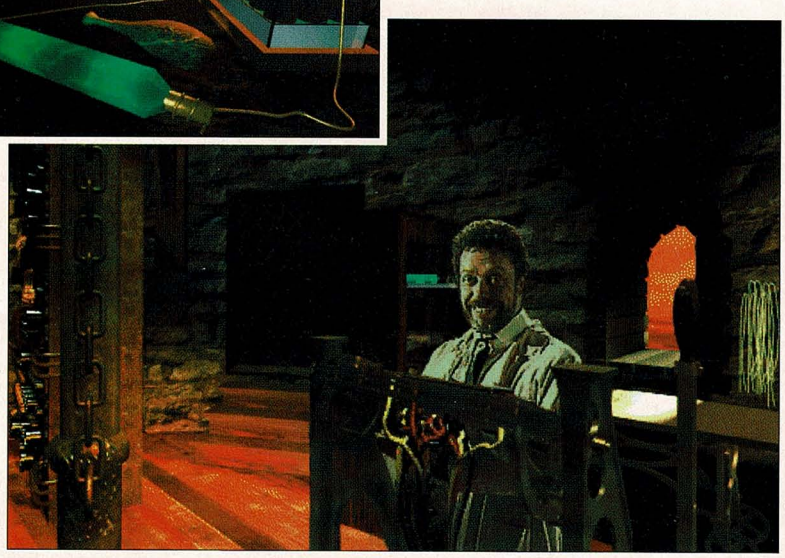
Unfortunately, gameplay counts for everything, and that's were *Frankenstein* dies, because apart from the odd QuickTime clip of the hugely entertaining Mr Curry, there's little else to this game. The graphics are well modelled, but not enough attention has been paid to fitting them together. The scrolling is slow and jerky, even on a PowerMac, and some of the 'links' you click on to move to the next image are illogically placed. Worse still, not all of the lighting effects in the rendered images match from frame to frame.

But most annoying is the repetitive use of images. Exploring the corridors of the castle, you soon tire of seeing the same blank wall over and over again, which hinders navigation too. The moody music is appropriately atmospheric, but repetitive. There are no breathtaking scenes as in *Myst*, and no awe inspiring effects. Point and click, watch some QuickTime, point and click. After a few hours of aimless wandering, the urge to keep playing wanes. Once you've completed the game, it will inevitably be consigned to a shelf to gather dust. **LINDSAY BRUCE**

Witness foul and dastardly experiments of unholy proportions to further man's medical knowledge. Or we could go to the pub if you prefer.



This is part of the setup Frankenstein used to bring you back to life – the green glowing bit is the life crystal he discovered. Nah, we're pulling your leg. Actually, this is an early microwave he uses to heat up his dinner.



Frankenstein's laboratory is well equipped with all manner of electrical goodies – some of which you can play with. Mind you, the dastardly doctor looks a lot like Jeremy Beadle.

FRANKENSTEIN

Price: £49.99. **Out:** now.
Requires: Quadra or better, 5Mb of RAM, System 7 or later, 13-inch colour monitor, 10Mb of hard disk space, double-speed CD-ROM drive.
Contact: Softline on 0181 401 1234.

GRAPHICS 62%
Nice QuickTime clips, but nothing spectacular. The rendered images are okay, but there's no great depth of detail.

SOUND 69%
Moody music to match the graphics, but repetitive. Some good sound effects and voice-overs.

GAMEPLAY 42%
Point and click movie with occasional inspiration. Not enough to see and do to make it a true adventure game.

MACFORMAT RATING 62%

Crime Patrol

Oh yes, it's lots of blood and gore as you get to shoot people like ducks in a funfair arcade – all in the name of justice. Get ready to kill or be killed.

Have you ever seen those television documentaries about 'animal intelligence'? They put a pigeon in a box with a window in it. A conveyor belt runs past the window, and along it move red and blue shapes. The pigeon is supposed to tap one of two buttons with its beak, depending on what colour the current shape is, and if it gets the right one it's given a peanut.

Crime Patrol is very similar. As low-grade video footage passes before your eyes, people occasionally pop up from behind cars and piles of empty cardboard boxes. If they've got a gun, you must shoot them by clicking on them with the mouse before they shoot you. If they haven't got a gun, they're goodies and mustn't be shot. The only difference is there's no peanut if you get it right.

Mass carnage

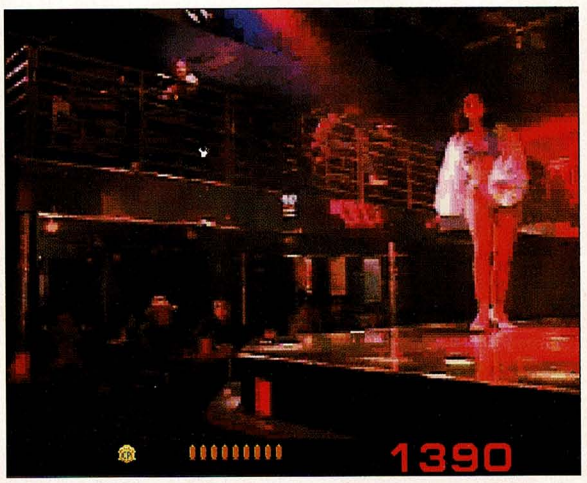
The video footage in question casts you as an armed US policeman – in other games published by American Laser you're a cowboy or a space detective. Egged on by your partner's cries of 'Let's kick some butt!', you deal with a series of crimes by killing everyone. A shop is being burgled: kill everyone. Some cars have been stolen: kill everyone. Some men are wandering around a warehouse dressed in balaclavas: kill everyone. In between, in a manner that would embarrass the A-Team, cars roll over and explode, caravans burst into flames for no reason, men fall from balconies in slow motion, and piles of cardboard boxes tumble over. It's terrible, of course, but entertaining to watch, and someone clearly had lots fun putting it together.

But as a game it's feeble. Although *Crime Patrol* is meant to test your reactions (Quick! There's a baddie over there!), the easiest way of getting through it is to know when someone's about to pop up from behind an oil drum and have the cursor hovering over him, ready to click as soon as he appears. And you don't need to be Mystic Meg to manage this – the system of 'lives' doesn't seem to work at all, so you can fearlessly play each sequence as many times as you like and learn each one off by heart, clicking through it, chin propped up on hand. In some scenes people pop up randomly, which is harder, but they're drawn from a small selection who rise, like Lazarus, from the dead to be gunned down over and over again, and the same woman keeps jumping up and shouting 'Don't shoot!' while frantically waving her arms around.

You should progress from Rookie to Detective to SWAT in under an hour, swiftly completing the three missions on each level. That just leaves Delta Force. At this point *Crime Patrol* appears to start cheating. You may find, for example, that some bloke jumps up from behind a barrel and you shoot him with your cursor, but instead of dying, he shoots you. It seems that you're not allowed to shoot too soon. The result is that the baddie has more of a chance to kill you first.

This is patently absurd, so if you do have the misfortune to possess this game, you may find that the most satisfying option is this: open your CD-ROM drawer, flick out the *Crime Patrol* CD, and kick its butt into the bin.

JONATHAN DAVIES



The dancer keeps on dancing despite the bullets ricocheting off the stage – surreal.

A small child. Blow him away.

A tense shoot-out at the airport. Note the discarded polystyrene cup on the dashboard of your Hollywood cop car.

Your SWAT partner, whose main function seems to be suddenly jumping out in front of you in the hope that you'll shoot her and lose.

A man on fire – swathed in protective clothing?

A baddie lies dead in Dixons.

CRIME PATROL

Price: $49.95. **Out:** now.
Requires: LCIII or better, 4Mb of RAM, System 7 or later, 256 colours and a CD-ROM drive.
Contact: American Laser in the US on 001 800 880 1718 or 001 505 880 1718.

GRAPHICS 44%
Indistinct video footage in a small window.

SOUND 50%
Lots of 'Aaarghh's and 'Uuurrrgh's.

GAMEPLAY 8%
Not actually discernible to the human eye.

MACFORMAT RATING 14%

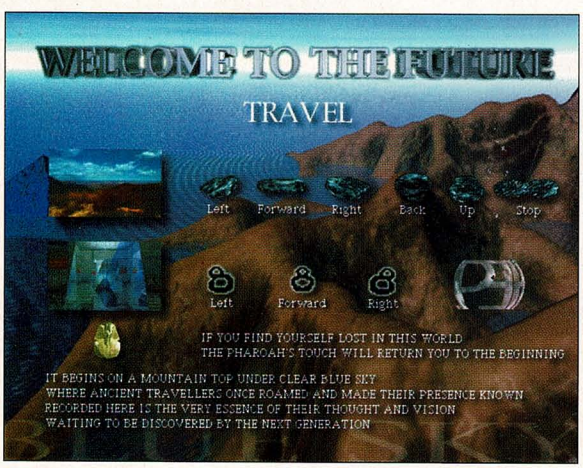
Welcome to the Future

What do you get when multimedia meets the New Age? A game that aspires to a whole new level of intellectuality, interactivity and realism. Humph.

Let's get something clear from the start. Computer games are not Art. They aren't literature, they aren't music, in fact they aren't intellectual in any way, shape or form. What they are (or should be) is fun. Cheap fun, easy fun, addictive fun. If games aren't fun almost from the instant you start to play them, then they're failures.

Welcome to the Future is not fun. That doesn't matter, though, because it's also not a computer game. Oh no.

If you thought Doctor Who did a lot of running down unconvincing corridors, you haven't seen anything yet. Mind blowing tedium awaits you in the lower levels.


WELCOME TO THE FUTURE
TRAVEL
Left
Forward
Right
Back
Up
Stop
Left
Forward
Right
IF YOU FIND YOURSELF LOST IN THIS WORLD
THE PHARAOH'S TOUCH WILL RETURN YOU TO THE BEGINNING
IT BEGINS ON A MOUNTAIN TOP UNDER CLEAR BLUE SKY
WHERE ANCIENT TRAVELLERS ONCE ROAMED AND MADE THEIR PRESENCE KNOWN
RECORDED HERE IS THE VERY ESSENCE OF THEIR THOUGHT AND VISION
WAITING TO BE DISCOVERED BY THE NEXT GENERATION

WTTF has one of the worst movement interfaces we've ever seen. All the movement icons look the same and have been thoughtfully made transparent, so you can hardly see them anyway.

According to its packaging, it is 'the most breathtaking alternate reality (sic) adventure ever.' Furthermore, it is 'an incredible high resolution surround-sound quest for discovery, art and music.' In less decorous magazines than MACFORMAT, rude words of derision would now follow.

The Future looks grim

Cutting a swathe through the pretension, *WTTF* is an adventure game positioned in competition with *Myst* and *The Daedalus Encounter*. However, with 16-bit (CD-quality) sound and 24-bit graphics (millions of colours), it's supposed to take this genre of gaming to a whole new level of realism and interactivity. Despite packing this kind of technology (and thus excluding the owners of average Macs), *WTTF* still fails to impress, because its authors see technical excellence as a fit substitute for originality and good design, and hyperbole is employed to cover up the holes.

Welcome to the Future just does not work as an interactive piece of adventure gaming. The basic structure runs along the lines of *Myst* – a trek from scene to scene with a minimum of animation in between. Unlike *Myst*, the scenes (the ones that aren't direct scans from someone's outback holiday snaps) are dull in the extreme. If this is the future, it's one where a minimum of imagination is allowed.

On the gameplay side, things are no better. Everything hangs on the fun to be had finding objects so abstract that you've no idea what you've found when you've found it. What's worse is that the search process seems to be totally random. If you don't know where something is, only chance will lead you to it. There certainly aren't puzzles whose answers would give you clues. In fact, there aren't any clues at all.

There's no introduction, no background story, and no overall objective other than completion. What little motivation you do have is rapidly exhausted by your first 20 minutes of trivial wanderings. No involvement, no excitement, a game dosed on Prozac from an early age. *WTTF* is so low on atmosphere, its tedium becomes suffocating.

What's most depressing, though, is *WTTF's* attempt to hide behind some kind of intellectual veneer. A 12-hour session on *SimCity*, *Myst* or (God forbid) *Welcome to the Future* is 12 hours passed in idle enjoyment and not in 'a quest for art'. If you cannot acknowledge the essentially throwaway nature of gaming, then acquaint yourself with a bookshop and stay away from the keyboard for a while. **JAMES ASHTON**

WELCOME TO THE FUTURE

Price: £45. **Out:** now.
Requires: Quadra or better, 8Mb of RAM, System 7 or later, 256-colour monitor, 40Mb of hard disk space, double-speed CD-ROM drive. Thousands of colours recommended.
Contact: Brøderbund on 01753 549442.

GRAPHICS 72%
Technically excellent (millions of colours etc), but dull pictures in high resolution are still dull pictures.

SOUND 49%
A whole album's worth of music, boasts the publicity. An album from Woolworth's bargain bin, unfortunately.

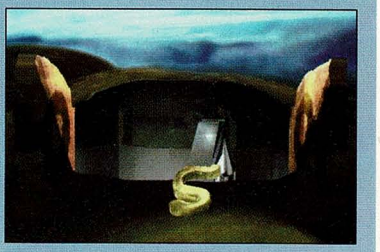
GAMEPLAY 10%
Absent without leave. It's hard to describe quite how tedious *WTTF* really is. More fun than dying. Just.

MACFORMAT RATING 38%

AND THIS IS A GOOD BIT...

In the future, keys will look like this and will be left lying around on rocks. Click on it to pick it up then. Stop yawning at the back.

Well, you've found the key-hole. Click on it to put the key in. There can be no doubt about it, *this is the future of interactive gaming.*



Hey presto, the key fits and out of the rock comes a mechanical grab clasping a gold icon thing. Be still, my beating heart.

POETRY

WTTF comes with free poetry. An example:

Currents Travel
There's No Turning back
Rugs unravel
The tearing of tracks
There's No Turning back!

Deep, that is.

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Wild Board Games

Another way to keep your children quiet? Animated host Jack the rabbit and friends present your kids with five entertaining, action-packed board games.

HIGH SCORES
Scores can be kept for all of the games, should you wish to foster a sense of competitive spirit. It is wise not to record your own scores if you do.

The trouble with kids is that they don't come with remote controls. Wonderful as children are, it's inevitable that you occasionally find yourself longing for a zapper thing to turn their volume down or something. You could try sitting them in front of your Mac for a while, but then you have to worry about corrupting their impressionable minds with pointless computer games.

This is where Corel's *Wild Board Games* can help keep your conscience clear. Pitched at four to ten year olds, it gives your children the opportunity to play five board games against animated opponents – Morton the monkey, Jack the rabbit, Edna the chicken and Benny the dog. The five games are Snakes and Ladders, a sliding panel puzzle, Draughts (referred to as Checkers), Reversi (which you might know as Othello) and Chess. They take place in one of four scenes – the attic, kitchen, backyard or basement. The idea is that not only will your children have fun, but they'll also keep out of your way, and learn an 'important social skill to enjoy for a lifetime' – presumably the vital one of not annoying mum and dad.

Bewitched

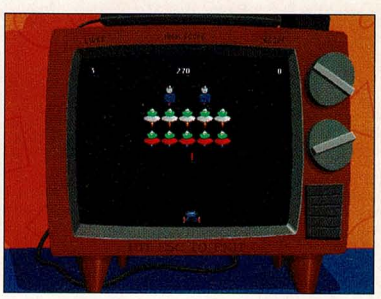
The characters, scenes, music and animation have the feel that we've come to expect from Corel – a slick, kooky 1960s cartoon style – and there's lots to make the CD fun for kids. This isn't the kind of collection of board game simulators that you could probably dig up on the Internet in shareware form sooner or later; it's an interactive set of action programs. You may find other, cheaper versions of the same games, but they won't offer all the trappings that grab your kids' attention and keep a tight hold.

In the basement, for example, you can click on the radio on a shelf and it starts to play. Click on other objects and they react too – the TV displays a few images, the ball bounces, the paint pot changes the background colour, and the computer runs a *Space Invaders* style arcade game. During the games your opponents do various things to keep you entertained, such as pull out a large bunch of bananas to eat, twist their heads round, chase cats or just pull faces. Their repertoire is small, and adults are likely to find these antics repetitive, but the kids who test-played *Wild Board Games* (aged five and ten) loved them, and looked forward to their favourite things coming up time and again. They found it much more fun, incidentally, than its rival game-teaching program, *Mario's Game Gallery*, which scored 86% when it was reviewed in MACFORMAT 29.

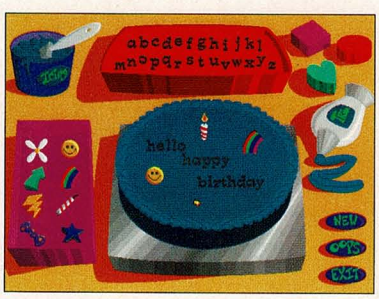
How well *Wild Board Games* teaches your kids to play the games is open to question – it only offers a little helpful explanation, and, while the 'hint' option isn't bad (it suggests a good move for you to make), it's no substitute for human explanation. The focus is entertainment first, education second. Nevertheless, the two kids who played it grasped the principles and rudimentary tactics of Reversi without anyone's help – and it kept them out of my way while I wrote this review in merciful peace and quiet. So until that kid-zapper arrives, *Wild Board Games* will do nicely.

ROB AINSLEY

Chess in the basement. The three levels of difficulty are well set, so kids can win on the lowest, while inattentive adults tend to lose on the highest.



Among the hidden things in the background of the basement is a *Space Invader* game.



Hidden in the background of the kitchen you can find this cake-making game – a balance to the shoot-'em-up game for more sensitive children.

The main screen of *Wild Board Games* demonstrates its '60s American cartoon feel.

WILD BOARD GAMES

Price: £23.49. **Out:** now.
Age range: four to ten.
Requires: LCIII or better, 8Mb of RAM, 13-inch monitor, CD-ROM drive.
Contact: Channel MarketMakers on 01703 814142.

GRAPHICS 91%
Cartoons are clear, bright, well-animated, quirky and fun.

SOUND 78%
Smoothly unimposing 1960s-test-card tinkles don't get in the way.

GAMEPLAY 89%
Character interaction is good, and the hints are helpful.

MACFORMAT RATING 88%

There's also a dress designing game. Nice to see something of interest to girls, as well as those shoot-'em-ups for the boys. There, I've said it.

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■ **Performa 400** 4/40, colour monitor, keyboard, mouse, mike, System 7, *ClarisWorks, PC Exchange* and more, 15 mths old, vgc – £450 ono. ☎ 01446 748646 (answerphone)

■ **LaserWriter IISC,** light home use only, perfect, much better than newer printers – £300 ono. ☎ 0171 601 8419 (day) or 0181 802 5081 (eve)

■ **PowerBook 160** 6/320, modem, System 7.1, cables, manual – £1,000. James ☎ 01674 676467 or fax 01674 676342

■ **Centris 650** 16/230, Video Spigot, double-speed CD-ROM, monitor, keyboard, mouse, more, boxed as new – £1,200 ono. Adam ☎ 0113 275 9715

■ **Mac IIvi** 8/80, Trinitron colour monitor, System 7, manuals, disks, mouse, keyboard, home use – £680 ono, may split. Guy ☎ 0181 883 5913

■ **Quadra/Centris** 660AV 8/500Mb, CD-ROM, loads of WP, graphic, DTP & music software, System 7.5 – £800. Steve ☎ 0171 813 0401

■ **Mac 630** 8/350, CD, exc condition, boxed system unit – £800. Rob ☎ 0181 252 4864 (eve)

■ **Performa 630** CD, 8/250, CD-ROM, unused keyboard, 6 mths warranty, software, boxed, as new – £750 ono, Performa Plus monitor optional. Norwich ☎ 01603 451839

■ **LC630 8/350/CD** with PowerPC upgrade card, runs at 66MHz, 15-inch Multisync display & 44Mb Syquest drive, all boxed – awaiting offers. Call Emir on ☎ 01705 874609

■ **Centris 660-AV** with monitor, keyboard, CD-ROM, digital video, *StudioVision* 4-track recorder/sequencer and extras – £1,500, may split. Andy ☎ 0121 605 6082

■ **Two 4Mb SIMMs,** 30-pin – £160 for both; 800K disk drive for SE etc – £15. ☎ 01923 822580

■ **Modem,** US Robotics Mac'n'Fax Sportster 14,400, boxed, unused – £190. Steve ☎ 0171 210 6110 (day) or 01732 740521 (after 7pm/wkend)

■ **LCII 4/80,** exc condition, careful use, original box, manuals, System disks – £450. Rugby ☎ 01788 551682

■ **Performa 400** 6/40, System 7.1, no monitor or keyboard – £275 ono. ☎ 01476 550848 (eve) or 0385 372435 (mobile)

■ **Apple LaserWriter** 320, unused, warranty, unwanted gift, cost £720 – sell £495. Suffolk ☎ 01473 712336

■ **Apple 12-inch** colour monitor – £120 ono; *MacWrite Pro* – £75; *Civilisation* – £18; *Monkey Island 2* – £16. Jonathan, Sussex ☎ 01243 266919

■ **Mac Classic** 4/40, StyleWriter II, bubblejet printer, Apple CD-ROM drive, loads of CDs and software (word processing, spreadsheet etc). Anthony ☎ 0161 248 7893

■ **AGFA slidewriter** with software to produce 4,000 line 35mm slides – £2,750. ☎ 01932 852528.

■ **Power CD** as new, inc cables, original packaging etc – £90 ono; Dovefax modem inc software, cables, manuals – £90 ono. ☎ 01494 816098

■ **Epson GT-8000** scanner, only three mths old, boxed, hardly used, as new – £400. South Essex ☎ 01268 682283

■ **Performa 475,** mouse, screen, keyboard, standard equipment, System 7.5, *ClarisWorks,* all manuals, two mths old, immaculate condition. Mark, Isle of Man ☎ 01624 670575

■ **Quadra 610** 8/500/CD, Apple 14-inch Trinitron monitor, keyboard, mouse, Radius Precision Colour two page display, 8-bit NuBus card – serious offers. ☎ 01425 611923

■ **Imagesetter Varityper** 5300, 12-inch film or bromide, new hard drive, studio day use only, 2,400dpi with processor – £4,500 ono. Tim ☎ 01437 765391

■ **Mac SE** 2/20, exc condition, no keyboard or mouse – hence £40 ono. Rob ☎ 01892 783173

■ **Mac Classic** II 4/40, vgc, home use only, includes *ClarisWorks 2.0,* keyboard, mouse and input mike – £340 ono. Andy ☎ 01458 834332

■ **Apple LocalTalk** card for networking ImageWriter II or LQ printers, new, never used, cost £150 – sell £40; ImageWriter II printer, all cables, manual, vgc – £130. ☎ 0181 548 0403

■ **Mac Plus,** 20Mb external drive, software, exc condition – £190. ☎ 0181 548 0403

■ **LC475 4/160,** 14-inch Performa Plus monitor, keyboard, mouse, DTP software – £600, free London delivery. Jon ☎ 0171 497 2047 (day) or 0181 876 1514 (eve).

■ **LC 4/40,** 12-inch Apple monitor, System 7, *Mac Programmers' Workshop, Programmers' Workshop,* word

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USER GROUPS

Need hands-on help with a Mac problem? Want to swap shareware or freeware, or just meet other Mac enthusiasts? Try a user group near you...

■ NW Macintosh and Apple user group. Cheshire area. Contact Sean McCleery ☎ 01270 624271. (MF33)
■ New Oxford user group. We're looking for members, help and shareware. Send an SAE to 30 Sandfield Road, Headington, Oxford OX3 7RJ. Monthly magazine! (MF33)
■ Pentrisoft – the programmers' user group. Distribution, tips and advice. Write to Stéphane Gray, 'Oaklands', Rock Lane, Hastings, East Sussex, TN35 4NY for details. (MF33)
■ Appel Club Eindhoven, The Netherlands. Contact Arie Nagel ☎ +3140 523879, or e-mail: **a.p.nagel@bdk.tue.nl** (MF33)
■ The Mac Netsurfer Group – a net discussion group for Mac users. Fax me (Josh) on ☎ 0171 328 5888 or e-mail: **Maniac@badapple.demon.co.uk** (MF33)
■ ClubMac Cork, for all Mac enthusiasts outside Dublin. Monthly meetings, own Bulletin Board, newsletter etc. On-line to Internet at meetings. New members welcome. For details telephone or fax Dominic Murnane ☎ 026 41167 or e-mail **dominicm@eirenet.net** (MF33)
■ MACBEL User Group VZW – Belgium's only non-profit Mac User Group. Bi-monthly magazines, Internet discounts, local BBS support (Telefinders 32-3-4543069) and meetings. Contact Bart, Belguim ☎ + 32 3 6404031 or e-mail: **info@macbel.be** (MF34)
■ Mac Jungle BBS on 01235 520507 – Telefinder host – 28.8K V.34 modems – over 1Gb of Mac shareware on-line! Now supporting TLAN conferences daily! (MF34)
■ Midapple, the Apple computer users' group in the West Midlands. Monthly meetings, newsletter. Send SAE for details to Midapple, 24 High Street, Wall Heath, Kingswinford, West Midlands, DY6 0HB. (MF36)
■ Brighton Hanover Computer Club for Mac, IBM and Amiga users. Meet fourth Tuesday every month, at the Hanover Centre, 33 Southover Street, 8pm. For details contact Colin ☎ 01273 602834. (MF36)
■ New BBS The Mac Factory. Specialises in Mac shareware & freeware. ☎ 01977 708911 (24hrs). SysOp Mark Evans. (MF37)
■ Massacre Bulletin Board now online. Modem speeds up to 14,400 24 hrs. ☎ 0131 447 9199 (MF37)
■ Red Apple Software, the Distribution Group! Non-profit making shareware authors who provide an established network for old & new programmers. Write to: RAS, Lane End, Oak Tree Lane, Tavistock, Devon PL19 9DA or log on to Apple-Eye BBS on 01234 822180. Red Apple/PentriSoft in the Computing conferences folder. (MF37)
■ The South East Essex Mac User Group meets in Southend, second Monday of the month at 8pm. Mike Foy ☎ 01702 468062 or e-mail **mac@mikefoy.demon.co.uk** (MF38)
■ A new first class BBS, Xnet UK ☎ 01992 550733. A local number to all London numbers, devoted to all subjects for problems. (MF38)

Groups are listed here for six issues, then deleted in order to help weed out defunct groups. The code at the end of each entry is the last issue in which it will appear. If you want your entry renewed, send in the coupon on page 135. If your group isn't listed here, then send us your details!

This list is a free service for amateur, non-profit-making Mac user groups. MACFORMAT does not endorse or recommend any group and cannot be held responsible for any problems you might suffer as a result of contacting groups advertised here.

processing and database software, games, all boxed – £400 ono; LaserWriter LS – £300 ono. All boxed. Tim, Hampshire ☎ 01256 702467 (eve)
■ **PowerMac 6100** 24/250 CD-ROM, Apple 16-inch monitor, Radius video card, adjustable keyboard, external speakers, GeoPort, many extras, light home use – offers. ☎ 0151 677 1143
■ **Mac LCII** 4/40, 14-inch Trinitron monitor, keyboard & mouse, vgc – £450 ono. Trevor ☎ 01925 819765
■ **LC475 8/160,** CD300e, Performa Plus monitor, keyboard, mouse, System 7.5 – £800 ono. Graham ☎ 01703 786327
■ **PowerBook 540c,** 12Mb of RAM, 320Mb hard disk, Express modem, hardly used – £2,500 ono. Paul ☎ 01276 26600 (any time)
■ **Quadra 840AV** 16/500, CD-ROM, 14-inch Trinitron monitor, keyboard, bought Jan '95, home use, as new – offers, can split. Greg ☎ 01829 740762
■ **Performa 475,** colour monitor, keyboard, mouse, StyleWriter II printer, cables, loads of software, still boxed, as new, sale due to upgrade – £950 ono. ☎ 01905 358204
■ Apple internal **fax/data modem** for PowerBook, new, unused – £100 ono. Norfolk ☎ 01953 605541 (eve) or 0374 100285 (mobile)
■ **Duo 250** 12/200 with Express modem, Duo Dock and MiniDock – £1,650; Mac SE 4/40 CPU only – £130. ☎ 01753 620137 (days)
■ **Performa 475** 8/160, System 7.5, 14-inch monitor, keyboard, mouse and external double-speed CD-ROM – £900 ono. ☎ 01932 241055
■ **Classic II** 4/40, home use, manuals, keyboard etc, Targus carry case, software, vgc – £350 ono. Grant, Edinburgh ☎ 0131 332 3607 (eve)
■ **PowerMac 7100/66** 8/250/AV, keyboard, mouse, three mths old, warranty until April '96, boxed with cables, manuals, immaculate condition – £1,500. ☎ 0171 267 1085
■ **Two 1Mb** 30-pin SIMMs, for LC range, 90ns, brand new – £39 for both, £20 each, can deliver & install, quick sale. Rory ☎ 01782 750700 or 01782 750080
■ **Apple Power CD,** all bits included, hardly used, as new – £60 ono. Sarah, Manchester area ☎ 01706 212713
■ **Performa 475** package, 4Mb of RAM, 160Mb hard drive, Apple CD300 external drive, vgc – £1,000. ☎ 01224 316876
■ **Centris 660AV,** 8/500/CD, 14-inch Trinitron monitor, ext keyboard, GeoPort, PlainTalk, many extras – £1,200; TI MicroLaser 600 – £525. All as new. Chris, Twickenham ☎ 0181 894 4818
■ **Classic 4/40,** System 6.0.7, keyboard, mouse, manuals, carry case – £200 ono. Derek ☎ 0121 602 3349
■ **LC475 4/250,** Apple keyboard & mouse, boxed, manuals – £475; 4Mb 30-pin SIMMs – £80; Apple CD300e, boxed – £125. ☎ 01923 822580
■ **Maths co-processor** for LC range, Classic or Performas, fits PDS slot – £12. ☎ 0116 254 7504 (after 6pm)
■ **LC475 4/80,** keyboard, mouse, Apple 14-inch high res colour monitor, System 7.1, *MS Works*, games, boxed, manual – £600. ☎ 0113 266 9717
■ **LC,** 32MHz 68030 accelerator, FPU, 14-inch Trintron monitor, 10Mb of RAM, 500Mb hard drive, CD-ROM drive, lots of software – £1,000. Mike, York ☎ 01347 810685
■ **Mac Classic II** 4/40, keyboard, mouse, manuals, microphone, boxed, as new – £600. Rob ☎ 01205 350879
■ **PowerMac 6100/60** 16/250/CD, Apple Trintron 16-inch monitor, keyboard, mouse, StyleWriter II, SyQuest 44Mb plus seven cartridges, 150 floppies – £2,500 ono. David, London ☎ 0956 495722
■ **Radius Pivot** 14-inch colour monitor, 8-bit colour card & software, original boxes – £275. ☎ 01923 213992 (work) or 0378 926759 (home)
■ **LCIII 4/80,** 14-inch Trinitron Energystar, ext keyboard, mouse, System 7.1, *ClarisWorks 3.0*, lots more, nearly new, all disks, manuals, boxes – £600 ono. ☎ 01225 862506
■ **Mac Plus,** 2.5Mb RAM, 20Mb external hard disk, keyboard, mouse, manuals, cables, superb condition – £150. ☎ 0117 987 7773
■ **Centris 610** 4/230, 14-inch RGB monitor, StyleWriter II, CD300, *MS Word, MS Works, Norton Utilities*, loads more, all manuals, boxes – £1,250 ovno. John, Staffs ☎ 01538 723100
■ **Performa 600** 5/80CD, 14-inch colour monitor, keyboard, mouse, *RAM Doubler*, manuals, warranty – £850 ono. Roger ☎ 01494 774288
■ **Performa 400** 10/80, Formac Pro Accelerator at 33MHz, light home use – £600; Apple CD300 CD-ROM drive – £100. ☎ 0973 343414
■ **Mac Quadra** 950 12/400 – £1,200 ono; Apple 16-inch colour monitor – £400 ono; PowerMac 6100/60 8/160, 14-inch high res AV monitor – £1,000. ☎ 01704 537722
■ **Sigma Power Portrait** A4 mono monitor, for any Mac, QuickDraw accelerator, boxed, perfect condition – £175 ono. ☎ 01203 673963
■ **LC475 8/250** bundle, ext keyboard – £750 ono. ☎ 01639 821747
■ **Performa 475** 8/250, Performa monitor & ext keyboard, over £2,000 of graphics/3D software – £1,000. Steve ☎ 0114 263 0959 (any time)
■ **Mac IIci** 8/120 cache card, high res monitor, keyboard, mouse – £625; PowerBook 170 4/40, fax-modem, case, manual, extra battery – £700. ☎ 01753 643309
■ **PowerBook** colour screen 165B 4/80, System 7.1, two mths old, new carry case, sale due to upgrade – £800 ono. ☎ 0181 804 7978 (eve)
■ **Apple CD-ROM** 300e, software, cables & terminator, boxed, as new – £120; StyleWriter II inkjet printer, boxed, as new – £120. Malcolm, Birmingham ☎ 0121 352 0668
■ **Mac SE,** System 7, *Word 5*, SyQuest with 44Mb cartridge, StyleWriter II printer, as new, boxed – £600 or consider splitting. Luke ☎ 0181 767 2331
■ **SE 2/20,** keyboard & mouse – £235; SE 4/40 FDHD, ext keyboard, mouse – £295. Middx/Surrey ☎ 01932 244454
■ **Quantum 230Mb** internal HD – £90; Atari Palmtop plus memory card (DOS/EXEL compatible). Both pristine, boxed, manuals – £100. ☎ 0113 245 5175 (eve)
■ **Performa 475** 12/160, 14-inch Trinitron monitor, Apple 300e CD-ROM, *RAM Doubler*, games & applications, all boxed, vgc – £1,500, collect if possible. Edinburgh ☎ 0131 334 5595 (after 6pm wkdays, after 7pm Sat)
■ **Logitech Scanman** handheld scanner, boxed, manuals, good condition – £90 ono. ☎ 0115 972 5369
■ **Mac Plus** 1/20, System 6, manuals & software, inc DTP, WP, s/sheet, drawing & games, vgc – £250. David ☎ 01932 562936
■ **Performa 450,** 14-inch monitor, keyboard, mouse, *ClarisWorks 3.0*, vgc, boxed, manuals, ten mths old, four yr extended warranty. ☎ 01633 660487
■ **SE30 4/40,** System 7, virtual memory, mouse, new Apple keyboard – £290. Devon ☎ 01626 864698
■ **LC 4/40,** 14-inch colour monitor, Sharp JX100 colour scanner, 20Mb SCSI external drive, fax-modem – £500 or swap for PowerBook. Paul ☎ 0181 840 4850 (day)
■ **LC 4/40,** System 7.1, 12-inch RGB monitor, extended VRAM, 80Mb external hard drive, Apple CD150, all manuals – £650 ono. Charles ☎ 0171 722 9129 (after 6pm)
■ **Performa 450** 8/120, Apple CD300e+ – £700 ono. Newport, Gwent ☎ 01633 277554
■ **Quadra** 660AV/CD, System 7.1, 8Mb of RAM, 230Mb hard disk, GeoPort fax/data, mouse, StyleWriter II & cartridges, exc condition – £800, buyer collects. Geoff ☎ 0171 485 4575
■ **LCII** 8/40, colour monitor, Apple design keyboard, System 7 – £500. Ben ☎ 01274 753271 (day)
■ **Performa** 400 4/40, System 7.1, Performa Plus monitor, keyboard, mouse, light use, exc DTP/CAD setup – £550. Peter, Kent ☎ 01303 255136
■ **PowerBook 165c** 10/120, as new with box, PSU, manuals, external monitor cable, System 7.1, HDI30 SCSI cable – £950 ono. Harjit, Bucks ☎ 01753 884981

SOFTWARE FOR SALE

■ ***PowerPrint 2.5.2,*** as new & boxed – £75. ☎ 01604 646104
■ ***MacWrite 2,*** with master disks & manuals – £35, easy upgrade to *MacWrite Pro*. ☎ 01734 886215
■ ***ClarisWorks 3.0*** & *Claris Organizer* bundle, manuals & disks – £50. ☎ 0117 931 2776, fax 0117 969 9099
■ ***PGA Tour Golf*** – £10; *PGA Tour Golf 2* – £20; *Star Trek: 25th Anniversary* – £15; *SimCity 2000* – £20. Mark ☎ 01743 232242
■ ***Flying Nightmares*** – £20; *Falcon MC* – £20; *Monkey Island 2* – £15; *A10 Attack!* – £25. Howard ☎ 01536 418137 or fax 01536 418928 (any time)
■ ***Software Omnis 7.1*** – £600; *Quark 3.1* – £450; *FreeHand 2.0.2* – £150; Future BASIC – £70; *Norton Utilities* – £50. Adrian ☎ 01328 851857
■ ***FreeHand 4.0,*** as new, boxed, all

manuals – £150; *Monkey Island 2*, boxed, unregistered – £10 or swap for *Musical Instruments* or *Crystal Caliburn*. ☎ 01772 701990

■ ***MacTools 3.0,*** *Claris Power To Go, SimCity 2000, WordPerfect 3.0,* any reasonable offers or swaps for software or hardware; VRAM for LC475 also wanted. ☎ 01565 873853

■ ***Photoshop 3.0*** – £300; *ClarisWorks 3.0* – £90; family/educational CD-ROMs – £20 ea or £100 all; Calcomp drawing tablet. ☎ 01592 610313

■ ***ClarisImpact 1.0,*** sealed in original packaging, never used – £100 ono. Neil ☎ 0131 554 5027 (after 5pm)

■ ***Enhanced Battle Chess*** CD, new & unused – £20. John ☎ 0171 267 3621

■ ***PageMaker 5.0,*** original sealed package – £180. ☎ 01603 402321

■ ***Myst*** – £20; *Return to Zork* – £15; *Zork Anthology* – £10; *Macbeth* – £10; *Lotus 1-2-3* – £15; *Virex, Daymaker, After Dark, Home Accounts* – all £5. ☎ 0181 569 6107 (eve)

■ ***Goblins 1 & 2,*** boxed – £17 ea or £30 for both. ☎ 01788 571645

■ ***Wolfenstein Third Encounter,*** 60 levels, all manuals – £12; *Iron Helix* CD – £8. Don ☎ 0141 644 3737 (eve)

■ ***Civilization*** – £15; *Secret of Monkey Island* – £10; *Prince of Persia* – £10; *Bridge 7.0* – £10; *Lemmings* – £5. Owen ☎ 0114 258 3543 (eve)

■ ***SimLife*** – £10, as new original disks & manuals. Ireland ☎ 00 353 21 344474

■ ***Photoshop 2.5 LE,*** unregistered, originally bundled with scanner – £150 ono. John ☎ 01903 732590

■ ***MS Office 4.2,*** brand new, cost £423 inc all manuals, will deliver and install – £375 ono. Rory ☎ 01782 750080

■ ***Think C 5,*** disks & manuals, plus three books: *Using Think C*, and *Macintosh C Programming: Primer Volumes 1 & 2* – £50. Glasgow ☎ 01505 612799

■ ***Mavis Beacon*** *Teaches Typing 2.0* – £18, boxed, unregistered, all manuals, will consider swap for flight sim or game. Mac ☎ 0181 360 1525 (eve)

■ ***Macromedia Director 4.0,*** unwrapped, unregistered, unwanted – £600 ono. ☎ 0181 289 1585 (day)

■ ***MacTools 3.0, WordPerfect 3.0, Sim City 2000, Microphone 1.7, Claris Power To Go,*** System 7.1 – offers or swaps. ☎ 01565 873853

■ ***7th Guest,*** *Myst, Journeyman Project, SimTown, Rebel Assault, Just Grandma & Me, Arthur's Teacher Trouble, Tortoise & Hare* – £15 ea. Berks ☎ 01344 779886

■ ***Kai's Power Tools,*** *KTP Bryce, Aldus Gallery Effects* – £50 ea; *Adobe Premier 2.0* – £75; *Astound 1.0* – £40; *Morph 1.0* – £25. Berks ☎ 01344 779886

■ ***Persuasion 3.0,*** unwanted prize, as new, boxed, unregistered, all manuals – £180. Max ☎ 0181 360 1525

■ ***Photoshop 3.0*** CD Deluxe version – £195. ☎ 01582 601004

■ ***ClarisWorks 2.1,*** original disks, manuals, boxed – £20 ono. Graham ☎ 01703 786327

■ ***ClarisWorks 3.0,*** *Claris Organizer,* unused, accelerated for PowerMac – £100. Octavio ☎ 0171 485 8999

■ ***Marathon,*** *Prince of Persia 1 & 2, Lemmings, PGA Golf, Star Trek: 25th Anniversary* – £40 for 2 inc p&p. ☎ 0171 378 0211 (answer machine)

■ ***KeyCAD Complete*** – £15; *PhotoFix* – £60; *Publish It! Easy* – £35; *Redux* – £15; *StuffIt! Deluxe* – £25. Mike, York ☎ 01347 810685

■ *Add Depth* – £25; *Adobe Streamline* – £30; *Bitfolio Maps* – £15; *Color Station* – £35; *Expert Landscape Design* – £15; *Home Publisher/Type Twister* £25. Mike, York ☎ 01347 810685

■ *MS Flight Simulator 4.0* – £30; *Lemmings* – £15 or £40 for both games; Sony MacView monitor cable adapter, attach PC monitor to Mac – £25. ☎ 0151 546 1543

■ *SimCity 2000,* unregistered – £20 or swap for *RAM Doubler.* Martin ☎ 0181 521 1400

■ ***Claris Organizer 1.0*** – £15; *PageMaker 4.2* – £140. Offers, will deliver locally. Richard ☎ 0181 965 9422

■ ***Myst CD,*** vgc – £25. Matthew ☎ 01223 277281 (after 6pm)

■ ***FreeHand 5.0,*** shrink-wrapped – £300. ☎ 01329 284854

■ ***Expert Astronomer,*** boxed – £22.50; *Typing Instructor (Encore),* boxed – £17.50; *Prince of Persia* – £10. Can swap. Nick ☎ 01202 424558

■ ***Lotus 1-2-3,*** new, unopened – £145; *MS Excel 3.0,* new, unopened – £115; *Far Side Calendar* £10; *At Your Service with After Dark* – £15. Cambridge ☎ 01223 512512

■ ***Alone in the Dark*** – £30; *Flashback* – £20; *Lemmings* bundle – £10; *Monkey Island* – £12; *Prince of Persia* – £20; *Pop 2* – £23. Lesley ☎ 0114 840 1641

■ ***Theme Park,*** *SimClassics* – £20 ea; *Marathon* – £30; *Populous* – £10; *Dark Seed* – £10, will also trade games for games, all as new. ☎ 01223 561580

■ ***MS Office 3.0*** – £70. Malcolm ☎ 01403 752559 (eve)

■ ***Dark Forces*** – £25 or swap for *Marathon.* Ian ☎ 01702 611785 (eve)

■ ***SoftWindows*** for Mac, boxed, manuals – £120 ono. ☎ 01628 665118

■ ***Home Publisher*** DTP software, boxed, as new, original disks and manual – £35. ☎ 01767 683810

■ ***Doom 2*** – £35; *Coderunner* – £10; *7th Guest* – £10; *WordPerfect 3.1,* unregistered – £40; various Mac magazines with Cover CDs – £2 ea. Norwich ☎ 01603 451839

■ ***Painter 2.0*** and x2 extension with manuals – £95; StyleWriter II with software – £95. Will swap both for colour StyleWriter 550c or similar. ☎ 01202 394264

■ ***King's Quest 6,*** *A-Train, Grailquest, Lemmngs* (unboxed), *Prince of Persia* (with manual) – £10 ea or £40 for the lot. ☎ 0113 267 7830 (after 3pm)

■ ***Space Ace*** CD, original, unregistered – £20; *Return to Zork* CD – £15. ☎ 0181 941 0555

■ ***FileMaker Pro 2.0*** with updater & *Mac Bible Guide,* boxed – £50; *Nisus Writer 4.06,* advanced document processor, with license – £100. All original manuals. ☎ 01661 843315

■ ***SoftWindows 1.0.2,*** bought new August '95 for £130 – sell for £100 ono; *RedShift* – £25 ono. Matthew ☎ 01624 833133

MISCELLANEOUS FOR SALE

■ **Training videos** for *Illustrator 5.5* & *QuarkXPress 3.3,* unwanted Xmas present, original tapes. ☎ 01442 870687

■ ***The Big Mac Book*** – £8; *The Apple Macintosh Book* – £8; *Technical Drawing with Claris CAD* – £8. Mike, York ☎ 01347 810685

■ ***CORE!*** – the interactive Mac e-zine you can really get your teeth into. E-mail **andy@duxx.demon.co.uk** or WWW Site **http://mkn.co.uk/help/extra/people/CORE!**

■ **Manuals** for sale, *Macintosh Users' Guide, Personal LaserWriter NT Owners' Guide, Microsoft Works Users' Guide, Aldus FreeHand manual* – offers. ☎ 01926 495976 (after 5pm)

■ Saber LAN Workstation network manager, prize, new, unopened – £100. Chris ☎ 01630 638352

WANTED

■ **PowerBook Duo** MiniDock, Duo floppy drive, fair price paid. Clive ☎ 0181 692 8129

■ **Graphic artist** for shareware Mac games. Royalties paid. Emphasis on cartoon style, not realism. Contact Nick Harper ☎ 01225 442244

■ **StyleWriter II** or colour StyleWriter, must be in good condition. Bill ☎ 0181 656 5769

■ **MACFORMAT** CD issues 14, 17 & 19, July '94, October '94 & December '94. Jim ☎ 01377 255180

■ ***Marathon*** on floppy disk, pay up to £30; dual speed external CD drive, pay up to £70, can collect if you're in Derby. Edward ☎ 01332 664394

■ **Education** programs on CD/ floppy, eg *Spelunx, Number Maze, Living Books, Thinkin' Things* – or can swap *Leonardo, Animals, Dinosaurs,* unboxed CDs. ☎ 01292 470630

■ **Mac** with System 7.1 and some games, will pay £150 ono. Adam ☎ 01485 528206 (4 to 7pm)

■ **LC475** or better for DTP and graphics, good condition. ☎ 0181 472 5258

■ **StyleWriter II,** colour StyleWriter, or LaserWriter; CD300 & US Robotics Mac'n'Fax. ☎ 0181 472 5258

■ **Apple QuickTake** 100 camera, CD300, greyscale scanner, urgent, good condition. ☎ 0181 548 0403

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■ ***Dell Crossword*** *Puzzles* for Newton, swap also possible. Finland ☎ 00 358 18 142386

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■ ***Copy Doubler,*** *Mavis Beacon Typing Tutor, Photoshop* plug-in for Apple scanner, *Illustrator 8.8* or later, LaserWriter IInt support disks and manuals wanted. ☎ 01472 398002

■ **Colour monitor,** any size, fair condition. Emma, Southampton ☎ 01703 495219 or 0836 603863

■ **Mac Classic** or similar and printer for running *ClarisWorks.* Mr Aston, Winchester ☎ 01962 862919.

■ ***Warlords 1*** **or 2** for £10 ono. Steve ☎ 01544 230853 (5 to 9pm)

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■ **CD-ROM** compatible for Performa, not over £110. London area only. ☎ 0181 771 8620

■ **System 6.0.7** disks (double density) for a Mac Plus with 40Mb hard disk. Paul ☎ 01279 868092 (day) or 01992 461517 (after 7pm)

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■ **PowerBook 100** plus cables, batteries etc wanted. All fair offers welcomed. David ☎ 0131 447 1330

■ **Spreadsheet** & accounts package for System 6.0.3; decent WP package (not *Word!);* later System 6 upgrade discs. Daniel ☎ 01422 372477

■ **Looking** for second-hand Mac keyboard. Norfolk ☎ 01953 605541

■ **LCII** or Performa 475 with at least 4/40; StyleWriter II; colour monitor. ☎ 0181 679 6788 (after 7pm)

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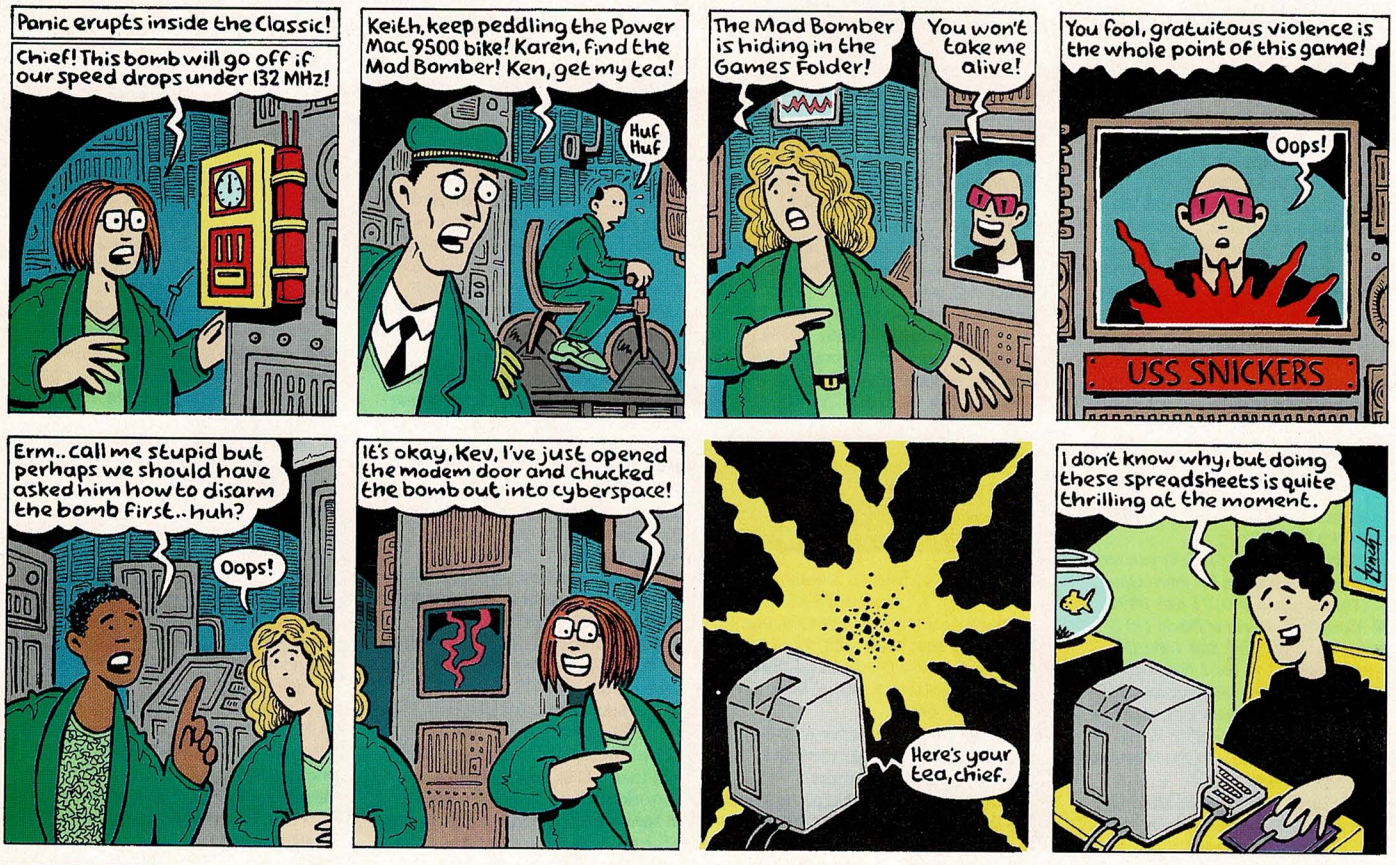
- County Court (ask someone there about the 'small claims procedure').

The Classic System Crew

By Bob Lynch


Panic erupts inside the Classic!
Chief! This bomb will go off if our speed drops under 132 MHz!
Keith, keep peddling the Power Mac 9500 bike! Karen, find the Mad Bomber! Ken, get my tea!
Huf Huf
The Mad Bomber is hiding in the Games Folder!
You won't take me alive!
You fool, gratuitous violence is the whole point of this game!
Oops!
USS SNICKERS
Erm.. call me stupid but perhaps we should have asked him how to disarm the bomb first.. huh?
Oops!
It's okay, Kev, I've just opened the modem door and chucked the bomb out into cyberspace!
Here's your tea, chief.
I don't know why, but doing these spreadsheets is quite thrilling at the moment.

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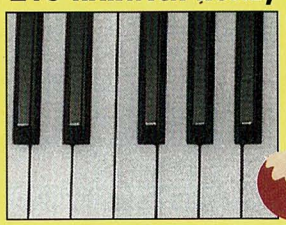

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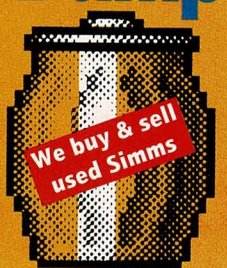

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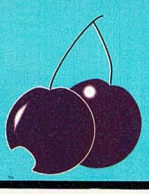

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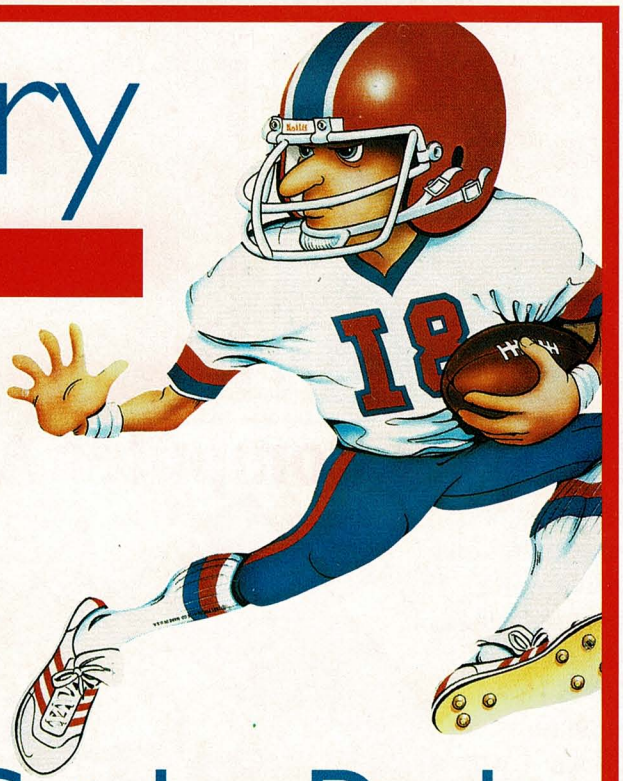

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Getting it right?

We asked you what you'd like to see in System 8 (AKA Copland) when it finally arrives. Here's one reader's passionate plea for more 'expert user' features.

STILL NOT RIGHT?

Do you have your own ideas about what Apple should include in System 8? Please send your suggestions to 'Get it right this time' at the address below.

So, ideas to go in System 8. Well, there are a few things I would like to see featured when it finally appears:

1. Convenient scroll arrows

A gripe with most Graphical User Interfaces (except OpenLook – an X GUI): why do we have to have the scroll arrows so far apart? It's silly and means moving the mouse much more. If you can click on the bar to jump, and drag the box to move fast, then why not put up and down arrows on the box too, à la OpenLook? It has a drag area, an up arrow above this and a down arrow below it. This is sensible human interface design! If Apple really want to, they can also leave arrows where they have them now...

2. Delayed printing

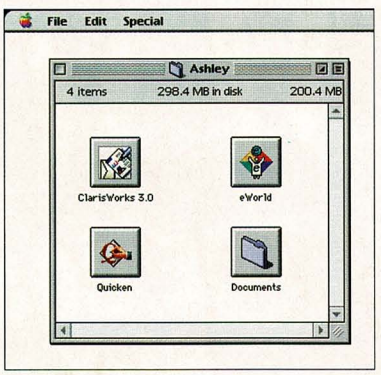
In the Print dialogues, why not have a radio button selection which defaults to 'print now' but can be set to 'print later' with a time setting box? Say you want your work to print out after everyone's gone home so as not to jam the office. You could set the time for 8pm, check the printer for ink and paper before you go, and come in next morning to a printout of your work.

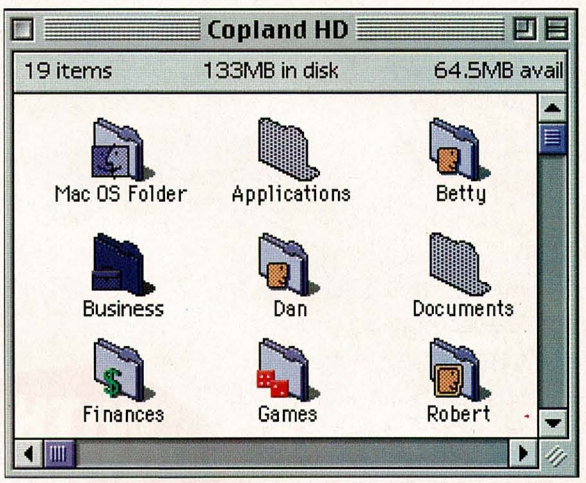
3. A virtual Desktop

I would really love a virtual Desktop to be standard *[where the Desktop is larger than the screen area]*. Again, like Open Look Virtual Window Manager. It is so nice to be able to move to a clean screen without having to close things, etc. And the idea of things being 'stuck' to the screen is an intuitive way of keeping things in sight like, say, your mail 'in-tray'. The shareware virtual desktop that I've seen is too fiddly to use, and doors are less intuitive than having a nice little display of what's what permanently around in a corner of the screen.

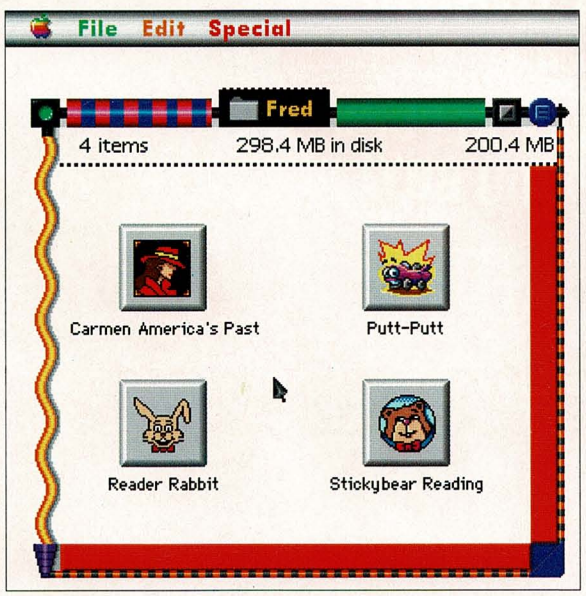
4. A command line interface

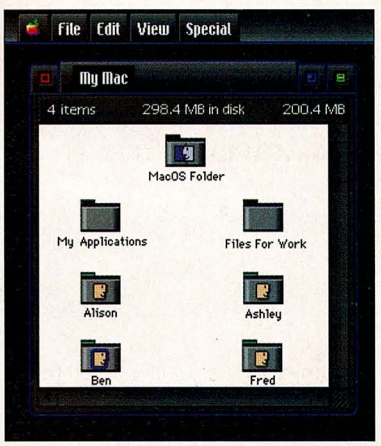
I am about to sin here, I know, but: I would really like a command line interface to do a few of the things that the Mac does well enough, but are laborious. Something like the UNIX tcsh is beautiful for managing files. Sure, make it well hidden, and make sure that people not comfortable with it do not need to use it, but provide it for those of us who like to get our hands dirty. And keep it concise, like tcsh, not wordy like AppleScript – the point of it is speed and easy of use for those who want it. It would be cute if we could customise things like the display using it, too – by making as many of the Control Panels as possible simply graphical tools that affect small configuration scripts which those in the know can edit quickly without fiddling with things like *ResEdit*. There is a shareware shell out there, but it has limited functionality.





System 8, otherwise known as Copland, will come with a beginner's Desktop: you only click on the icons once to open them (great if you're awkward with a mouse), and there are fewer menu options.





You'll get lots of different choices for displaying the Finder with System 8. This is the standard Desktop with redesigned icons and windows, but you can also have 3D icons or fun icons for kids (left), among others.

5. Built-in configurability

Greg's Buttons [a shareware Control Panel which enables you to customise your Desktop with things like 3D buttons and menus] really does make the Mac nicer to look at. Couldn't Apple include this configurability in a standard Control Panel?

6. Resolution control

Give us, as standard, the ability to choose our display's resolution up to at least 1,024 x 768 on whatever monitor we choose to use. It's up to *us* if we suffer eye damage from doing it on a 9-inch screen! I don't like the present Monitors Control Panel, which uses monitor sizes and types when all I want is resolution changes.

Geoff Saulnier
Luxembourg, via FutureNet

YOUR CALL

Opinions expressed on this page are those of the authors, not necessarily those of MACFORMAT or Future Publishing Ltd. If you have something to say, write to 'Talking Point', MACFORMAT, 30 Monmouth Street, Bath BA1 2BW. We reserve the right to sub-edit your grammar, but won't alter the sense of any opinions.

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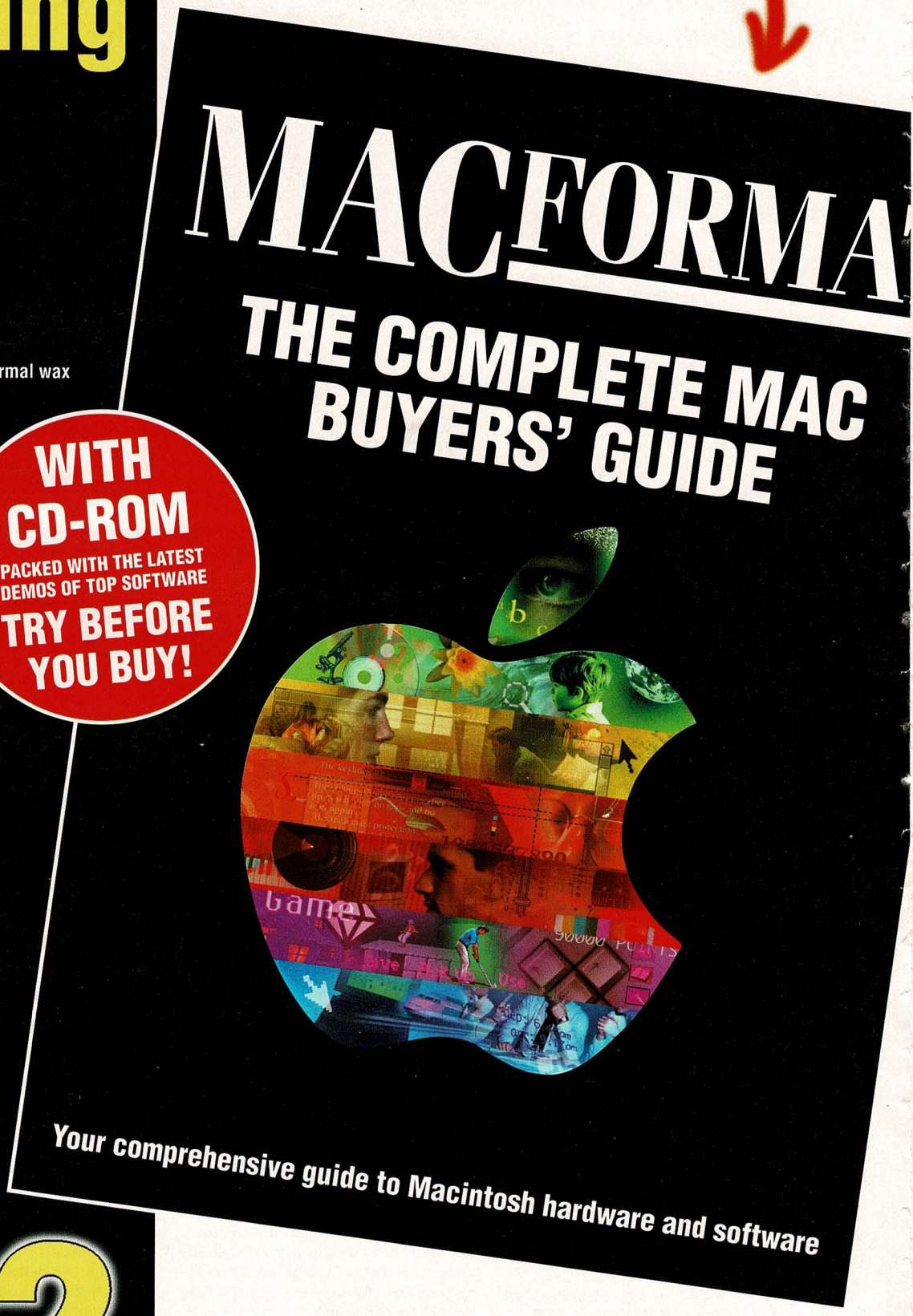
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A small glimpse of tomorrow – the Tiny Zone

Hello and welcome again to Tiny Zone, the section of MACFORMAT that gives you a small window on the future, even without knowing it. If you're a regular visitor to Tiny Zone, you might recall how last issue we made the small observation that Apple had the quality product to trounce the over-hyped Windows 95, and had only to put a bit of effort into promoting it in the face of MicroSoft's publicity blitz. Little did we know (all we know is little) that Apple were indeed planning a Christmas advertising campaign of massive proportions (certainly massive by Tiny Zone's standards). As we report in our news pages this issue, Apple are gearing up for ads on radio and TV, including celebrity endorsements on MTV, plus special offers for parents and teachers, and even sending trained demonstrators out into the shops to show potential buyers what the Mac can really do. That last move is a bigger step than it seems, we reckon. For far too long, shoppers in high street outlets like Dixons have been faced with a barrage of slickly-presented, aggressively-marketed, deeply-discounted PC clones, with bundled software and hardware from bargain printers to budget speakers. The choice often seemed to come down to which was the cheapest overall package, while the genuine alternative, usually a Performa, sat in a corner quietly playing some dire multimedia demo to itself. The Mac's market share has steadily increased, but real growth can't come from leaving the machine to sell itself with modest understatement. So even if it means more hype (of a kind), roll on the advertising campaign! And if you doubt that Apple mean business, take a glance at what they're doing in the States. As well as a magazine ad blitz, Apple US have planned a *huge* network TV ad campaign with 'a consistent presence' during American football broadcasts for the rest of the season, plus ads booked into dozens of top programs from *Home Improvement, Coach, NYPD Blue* and *ER* to *Saturday Night Live* and *X-Files*. At last, the truth is out there alright!

NEXT ISSUE

THE FUTURE IS BRIGHT

Tomorrow's world

The future is Apple! Or rather, 1996 is the year of the Mac. We explore the trends and developments that will transform your Mac – and possibly computing itself – next year, from new hardware to revolutionary software.

Follow the Script

Programming is only the beginning! Discover how you can use Apple's built-in scripting language, AppleScript, to take control of your Mac and automate almost anything it does.

Free Mac manual

Next issue, our *free 100-page* Alternative Mac Manual explains everything you *wish* your manual had told you, with invaluable insights and handy tips for veterans and novices alike!

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ARE YOU A WINNER?

Back in MACFORMAT 29, we gave you the chance to win a selection of training videos from the marvellous MacAcademy range, covering a wide range of topics from design and layout to troubleshooting and software-specific titles. The winner, who gets his choice of five titles from the list of 25 up for grabs, is A J Beard of London W1. The five runners-up, who get to choose two titles each, are: Graham Jones of Fleet, Hants; Gary Doran of Canvey Island, Essex; Peter Denereaz of Sevenoaks, Kent; Jan-Anders Lindquist of Västra Frölunda, Sweden; and Aidan McCarroll of Dublin.

Ten more readers win a consolation prize of one title each: D K Bracken of London N16; Dugald McCullough of Belfast; Mrs P Collings of Edinburgh; Stephen Maher of Birmingham; John Kyle of Wembley; Aksel-Johan Hegrem of Mørkved in Norway; M J Richardson of Lowestoft, Suffolk; J Thorpe of Bristol; Nigel Clarke of Leeds; and Michael Moore of London SW18. That's a total of 16 lucky winners, sharing a total of 25 top MacAcademy video titles – congratulations to all!

MACFORMAT 33 goes on sale on Thursday 21 December

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Win a Reno Portable CD-ROM Player

Win a versatile double-speed CD-ROM drive that you can simply unplug and take with you. We have five to give away, worth £2,000, courtesy of Gasteiner Technologies.

With so much software coming on CD-ROM these days, you almost can't afford not to have a CD-ROM drive. The Reno, as well as being a double-speed CD-ROM drive, is also a portable audio CD player that you can take with you wherever you go.

With a speedy 180ms access time, the Reno is optimised to run demanding games, multimedia, educational titles and business applications with no trouble. It comes with a standard SCSI2 interface (which plugs nattily onto the back of the drive via a docking station), and if you're on the move you can connect it to your PowerBook and take it anywhere. It's fully Kodak PhotoCD multi-session ready, and it includes all the driver software you'll need to get it up and running.

The Reno is also an audio CD player, so you can use it to either play audio CDs through your Mac or take with you on the road – it can run on AA batteries or AC power and it only weighs 1.2lbs. It has all the external controls you need, and comes with stereo headphones, carrying case, and AC adaptor and cables.

The Reno Portable CD-ROM Player normally sells for £410, but Gasteiner Technologies are offering it for the special Christmas price of just £153 until the end of the year. Or five lucky readers will each win a Reno Portable CD-ROM Player here, courtesy of Gasteiner Technologies.

Gasteiner Technologies are a long-established company selling a wide range of hardware, software and games for the Mac, at highly competitive prices. Give them a call on 0181 345 6000 or take a look at their advert in this issue for more information.

To win a Portable Reno CD-ROM Player, just answer the three simple questions below and send us your entry on a postcard or the back of a sealed envelope. The closing date is Tuesday 2 January 1996.

The Rules

Employees of Gasteiner Technologies, Future Publishing Ltd or associated companies, and their families, are not eligible to enter. Multiple entries are not allowed, unless you send them in written on the back of a really cheesy CD *(Wurlitzer Magic Vol 1* or cheesier). The editor's decision is final, no correspondence will be entered into, and there is no cash alternative. Please state if you don't want your name added to a mailing list. **MF**

The Questions

1. The Reno Portable CD-ROM Player has an access time of 180ms. What does ms stand for?
(a) miles per second
(b) milliseconds
(c) microsoft standards

2. How much data can you store on an average CD-ROM?
(a) 45Mb
(b) 1.2Gb
(c) 650Mb

3. Who invented CD technology?
(a) Philips
(b) Apple
(c) The CIA

4. Special tie-breaker question: What does the name 'Gasteiner' mean?

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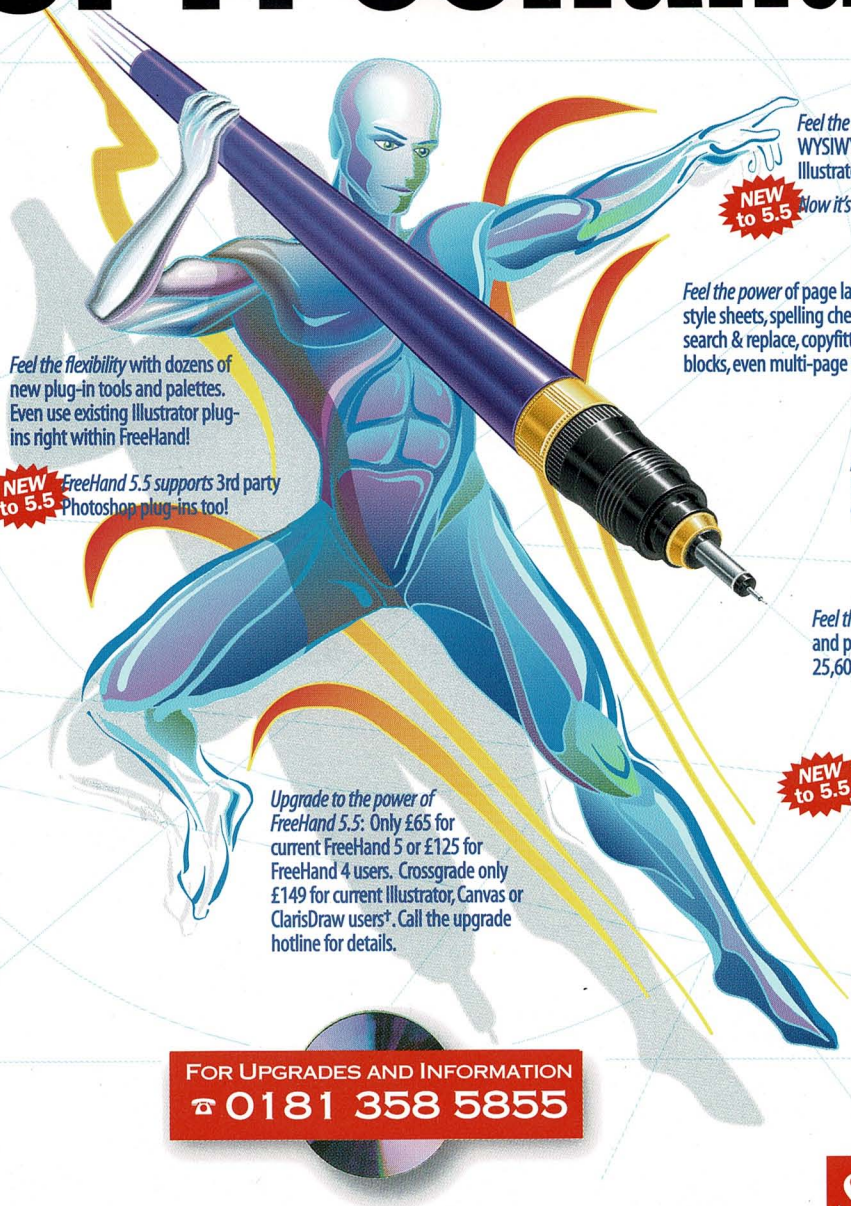

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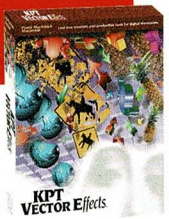

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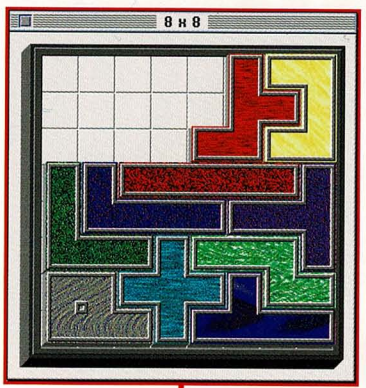
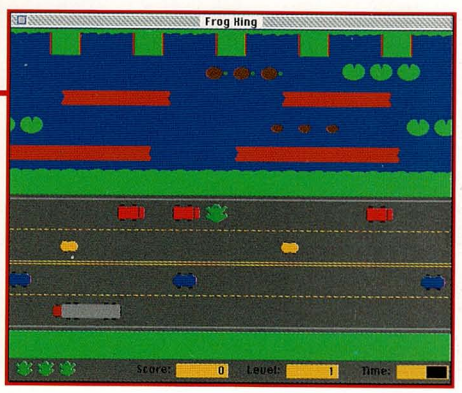
ON THE DISK THIS ISSUE...

A great collection of software is crammed onto this issue's disk – games to take your mind off all the Christmas shopping, goodies for your Christmas stocking, utilities to tidy up and organise your Mac, even software to help you look into the future...



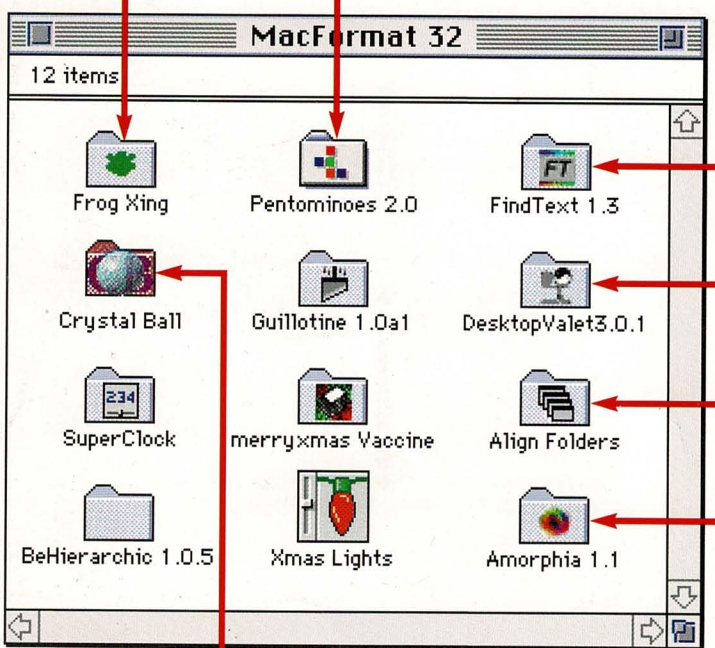
PENTOMINOES

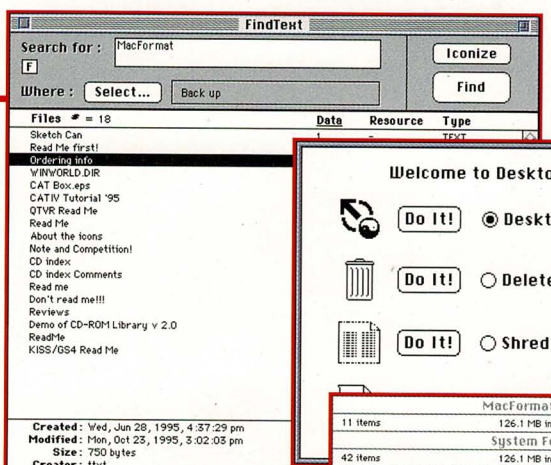
Pentominoes is a puzzle game in which you have to fit a range of coloured shapes into a grid. You are allowed to flip or rotate the shape in your attempts to squeeze them all together, but you must take care to ensure the shapes are put in the correct order, or you'll have some left over and fail in your mission.

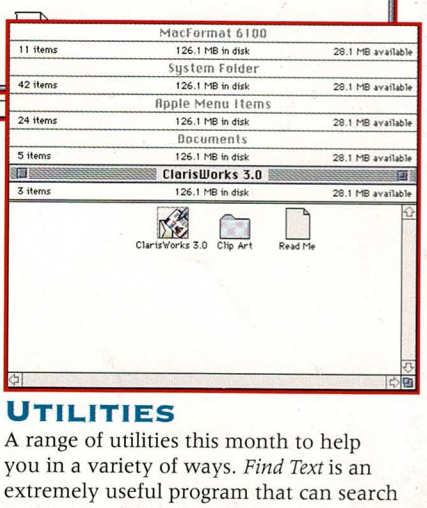


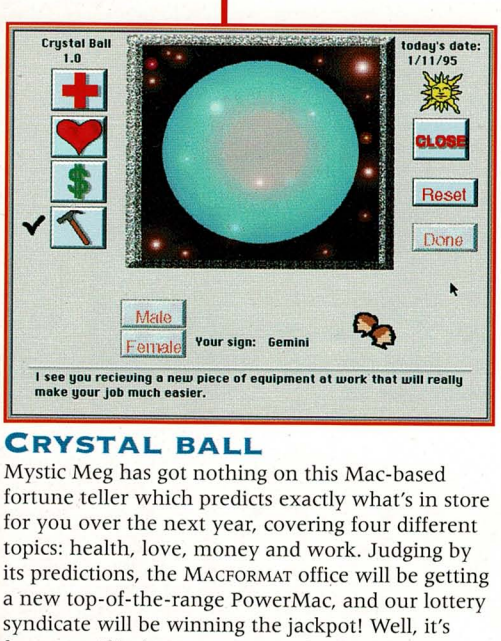
FROG XING

Frog Xing is a Mac cousin of the classic arcade game *Frogger*. You have to guide your froggy friend across a busy road, then get him to jump to the safety of the other bank of a river, via the backs of passing logs, lily pads and turtles.



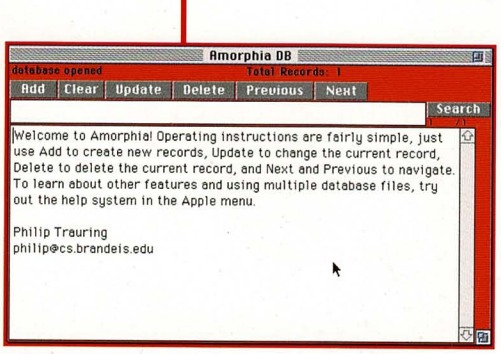






CRYSTAL BALL

Mystic Meg has got nothing on this Mac-based fortune teller which predicts exactly what's in store for you over the next year, covering four different topics: health, love, money and work. Judging by its predictions, the MACFORMAT office will be getting a new top-of-the-range PowerMac, and our lottery syndicate will be winning the jackpot! Well, it's fun, even if it doesn't quite get the future right.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Next
Search
Welcome to Amorphia! Operating instructions are fairly simple, just use Add to create new records, Update to change the current record, Delete to delete the current record, and Next and Previous to navigate. To learn about other features and using multiple database files, try out the help system in the Apple menu.
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AMORPHIA

Databases can be complex beasts, confusing to set up and tough to master. *Amorphia*, however, is a simple database that enables you to quickly define things the way you want. *Amorphia* can be an address book, telephone directory, disk index or any other list-based document you need.

UTILITIES

A range of utilities this month to help you in a variety of ways. *Find Text* is an extremely useful program that can search out text in all the documents on any drive or disk anywhere on your Mac. *DesktopValet* gives you drag-and-drop capabilities for some of the more common Mac housekeeping duties, while *Align Folders* clears up the tangle of windows on your Desktop into nice neat rows. Lovely.